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Report No: 83881-HR

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROGRAM APPRAISAL DOCUMENT

ON A

PROPOSED LOAN

IN THE AMOUNT OF EUR 75 MILLION
(US\$ 103.5 MILLION EQUIVALENT)

TO THE

REPUBLIC OF CROATIA

FOR AN

IMPROVING QUALITY AND EFFICIENCY OF HEALTH SERVICES
PROGRAM-FOR-RESULTS

April 10, 2014

Human Development Sector Unit
Central Europe and the Baltics
Europe and Central Asia Region

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CURRENCY EQUIVALENTS

(Exchange Rate Effective February 28, 2014)

Currency Unit = Kuna (HRK)
HRK 5.5457 = US\$1
US\$0.1803 = HRK 1
US\$1.379 = EUR 1

FISCAL YEAR

January 1 – December 31

ABBREVIATIONS

AQAHS	Agency for Quality and Accreditation in Health Care and Social Welfare	IPP	Investment Project Financing
CAS	Country Assistance Strategy	IRR	Internal Rate of Return
CPS	Country Partnership Strategy	KPI	Key Performance Indicators
DALYs	Disability-adjusted Life Years	LTC	Long Term Care
DEMSIPP	Development of Emergency Medical Services and Investment Planning Project	LTHC	Long Term Health Care
DLIs	Disbursement-Linked Indicators	LTSC	Long Term Social Care
DPL	Development Policy Loan	M&E	Monitoring and Evaluation
DRG	Diagnosis Related Groups	MoF	Ministry of Finance
ECP	Emergency Care Practitioner	MoH	Ministry of Health
ESSA	Environmental and Social System Assessment	NCD	Non Communicable Disease
EU	European Union	NHS	National Health Service
FINA	Financial Agency	NICE	National Institute for Clinical Excellence
GDP	Gross Domestic Product	NPV	Net Present Value
GIS	Geographic Information System	PAD	Program Appraisal Document
GOc	Government of Croatia	PDO	Program Development Objective
GP	General Practitioner	PforR	Program-for-Results
HFA	(European) Health For All database	PHC	Primary Health Care
HCQI	Health Care Quality Indicator Project	PIFC	Public Internal Financial Control
HRK	Croatian Kuna	POM	Program Operational Manual
HTA	Health Technology Assessment	PPA	Public Procurement Act
HZZO	Croatian Institute for Health Insurance	PPP	Purchasing Power Parity
IBRD	International Bank for Reconstruction and Development	QALYs	Quality-adjusted Life-Years
ICER	Incremental Cost-Effectiveness Ratio	QI	Quality Indicators
INTOSA	International Organization of Supreme Auditing Institutions	SAO	State Audit Office
		SMART	Specific, Measurable, Attainable, Relevant, and Time-bound
		USKOK	Bureau for Combating Corruption and Organized Crime

Regional Vice President: Country Director: Acting Sector Director: Sector Manager: Task Team Leader:	Laura Tuck Mamta Murthi Alberto Rodriguez Daniel Dulitzky Marcelo Bortman
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REPUBLIC OF CROATIA
IMPROVING QUALITY AND EFFICIENCY OF HEALTH SERVICES
PROGRAM-FOR-RESULTS

Table of Contents

I.	STRATEGIC CONTEXT	1
A.	Country Context.....	1
B.	Sectoral and Institutional Context.....	1
C.	Relationship to the CAS/CPS and Rationale for Use of Instrument.....	3
II.	PROGRAM DESCRIPTION	4
A.	Program Scope	4
B.	Program Development Objective/s (PDO).....	9
C.	Program Key Results and Disbursement-Linked Indicators	9
D.	Key Capacity-Building and Systems-Strengthening Activities	10
III.	PROGRAM IMPLEMENTATION	11
A.	Institutional and Implementation Arrangements.....	11
B.	Results Monitoring and Evaluation.....	11
C.	Disbursement Arrangements and Verification Protocols.....	12
IV.	ASSESSMENT SUMMARY	13
A.	Technical.....	13
B.	Fiduciary	14
C.	Environmental and Social Effects.....	17
D.	Integrated Risk Assessment Summary.....	18
E.	Program Action Plan.....	19
	Annex 1: Detailed Program Description.....	20
	Annex 2: Results Framework Matrix.....	27
	Annex 3: Disbursement-Linked Indicators, Disbursement Arrangements, and Verification Protocols	29
	Annex 4: Summary Technical Assessment.....	37
	Annex 5: Summary Fiduciary Systems Assessment.....	57
	Annex 6: Summary Environmental and Social Systems Assessment.....	57
	Annex 7: Integrated Risk Assessment	90
	Annex 8: Program Action Plan.....	92
	Annex 9: Implementation Support Plan.....	96
	MAP IBRD CRO33394	98

Tables

Table 1.	Government program 2012–2020 (EUR Million)	8
Table 2.	Program Financing.....	8
Table 3.	Estimated Profile of Program Expenditures.....	8
Table 4.	2012-2020 Government program.....	20
Table 5.	Program Financing.....	25
Table 6.	Estimated Profile of Program Expenditures.....	25
Table 7.	Savings in Outpatient Costs Compared to Inpatient Costs for the Same Procedure, with Evidence	45
Table 8.	Transforming Inpatient Services into Outpatient Services	45

Table 9. Reorienting the Service Delivery Model and Implementing the Hospital Reshaping Schemes ...	46
Table 10. Improving Quality through Audits, Accreditation Procedures, and Quality Control Mechanisms	48
Table 11. Saving Costs through Prescription Monitoring and Centralized Procurement	50
Table 12. Strengthening the Role of Primary Health Care through GP Group Practices	51
Table 13. Benefits from the Transformation of Hospital Inpatient to Outpatient Services	54
Table 14. Benefits from DALYs averted (EUR '000s).....	55
Table 15. NPV and IRR of the entire program (EUR '000s).....	56
Table 16. Government program 2012–2020 (EUR Million)	60
Table 17. Program Financing.....	60
Table 18. Estimated Profile of Program Expenditures.....	60
Table 19. Program Action Plan.....	94
Table 20. Main Focus of Implementation Support	97
Table 21. Task Team Skills Mix Requirements for Implementation Support	97

Figures

Figure 1: Public Health expenditures.....	2
Figure 2: Program results chain	21
Figure 3: Total DALYs averted by year compared to Europe and Central Asia counterfactual projections, baseline scenario	56

PAD DATA SHEET

Republic of Croatia

IMPROVING QUALITY AND EFFICIENCY OF HEALTH SERVICES
PROGRAM-FOR-RESULTS

PROGRAM APPRAISAL DOCUMENT

*Europe and Central Asia
Health, Nutrition and Population Unit, ECSH1*

Basic Information

Date:	April 10, 2014	Sectors:	Health (100%)
Country Director:	Mamta Murthi	Themes:	Health System Performance; Public Expenditure; Financial Management and Procurement
Sector Manager/Director:	Daniel Dulitzky/Alberto Rodriguez		
Program ID:	P144871		
Lending instrument:	Program for Results		
Team Leader(s):	Marcelo Bortman		
Program Implementation Period: Expected Financing Effectiveness Date: Expected Financing Closing Date:	Start Date: May 9, 2014 September 1, 2014 June 30, 2018	End Date:	June 30, 2018

Program Financing Data

<input checked="" type="checkbox"/>	Loan	<input type="checkbox"/>	Grant	<input type="checkbox"/>	Other
<input type="checkbox"/>	Credit				

For Loans/Credits/Others (in US\$ Million Equivalent):

Total Program Cost:	248.3	Total Bank Financing:	103.5
Total Cofinancing:	144.8	Financing Gap:	0

Financing Source	Amount (in US\$ Million Equivalent)
BORROWER/RECIPIENT	144.8
IBRD	103.5
Total	248.3

Borrower: Republic of Croatia					
Responsible Agency: Ministry of Finance					
Contact:	Silvija Belajec	Title:	Head of the Sector		
Telephone No.:	(+385) 1 4591 258	Email:	Silvija.belaiec@mfim.hr		
Responsible Agency: Ministry of Health					
Contact:	Antoaneta Bilic	Title:	Head of the Sector		
Telephone No.:	(+385) 1 4607 653	Email:	Antoaneta.bilic@miz.hr		
Expected Disbursements (in US\$ Million Equivalent)					
Fiscal Year	2015	2016	2017	2018	
Annual	10.5	26.0	31.0	36.0	
Cumulative	10.5	36.5	67.5	103.5	
Program Development Objective(s)					
The Program's development objective is to improve the quality of health care and efficiency of health services in Croatia.					
Compliance					
Policy					
Does the program depart from the CAS in content or in other significant respects?					
Yes [] No X					
Does the program require any waivers of Bank policies applicable to PforR?					
Yes [] No X					
Have these been approved by Bank management?					
Yes [] No []					
Is approval for any policy waiver sought from the Board?					
Yes [] No X					
Does the program meet the Regional criteria for readiness for implementation?					
Yes X No []					
Overall Risk Rating: Moderate					
Legal Covenants					
Name	Recurrent	Due Date	Frequency		
Program fiduciary , Environmental and social system	Yes		Continuous		
Description of Covenant. Without limitation on the provisions of Article V of the General Conditions, the Borrower shall carry out the Program, or cause the Program to be carried out, in accordance with financial management, procurement and environmental and social management systems acceptable to the Bank (“Program Fiduciary, Environmental and Social Systems”), which are designed to ensure that:					
1. the Loan proceeds are used for their intended purposes, with due attention to the principles of economy, efficiency, effectiveness, transparency, and accountability; and					
2. the actual and potential adverse environmental and social impacts of the Program are identified, avoided, minimized, or mitigated, as the case may be, all through an informed decision-making process.					

Name	Recurrent	Due Date	Frequency
Other program institutional and implementation arrangements	Yes		Continuous
Description of Covenant. Implementation arrangements			
1. <u>Program Institutions</u>			
The Borrower shall:			
(a) maintain or cause to be maintained during the implementation of the Program, the offices, units and branches within the Ministry of Health (MoH) and Ministry of Finance (MoF) and/or under any other relevant ministries, each assigned with technical, environmental and social safeguards, fiduciary and other Program related responsibilities for implementing the Program, all with powers, functions, capacity, staffing and resources satisfactory to the Bank to fulfill their respective functions under the Program; and			
(b) through the Implementation Agreement, cause Croatian Institute for Health Insurance (HZZO) and Agency for Quality and Accreditation in Health Care and Social Welfare (AQAH) to: (i) assist the MoH and MoF in carrying out the Program in the manner set forth in the Implementation Agreement, and to maintain appropriate responsibilities required for such assistance; and (ii) comply with the Anti-Corruption Guidelines. The Borrower shall exercise its rights under the Implementation Agreement in such manner as to protect the interests of the Borrower and the Bank and to accomplish the purposes of the Loan. Except as the Bank shall otherwise agree, the Borrower shall not assign, amend, abrogate or waive the Implementation Agreement or any of its provisions.			
2. <u>Additional Program Implementation Arrangements</u>			
The Borrower shall:			
(a) carry out the Action Plan, or cause the Action Plan to be carried out, in accordance with the schedule set out in the said Action Plan in a manner satisfactory to the Bank, and shall ensure that the Action Plan is not amended, revised, waived, voided, suspended, terminated or abrogated, without the prior written consent of the Bank; and			
(b) carry out the Program in accordance with the Program Operational Manual (POM), or cause the Program to be carried out in accordance with the POM, and shall ensure that the POM is not amended, revised, waived, voided, suspended, terminated or abrogated, without the prior written consent of the Bank.			
3. <u>Independent Assessment or Audit</u>			
The Bank may, at its discretion and if it deems necessary, from time to time request assessments or audits by independent agencies acceptable to the Bank to verify the data supporting the achievement of one or more Disbursement Linked Indicators (DLIs).			
Name	Recurrent	Due Date	Frequency
Excluded Activities	Yes		Continuous
Description of Covenant. The Borrower shall ensure that the Program excludes any activities which:			
(a) in the opinion of the Bank, are likely to have significant adverse impacts that are sensitive, diverse, or unprecedented on the environment and/or affected people; or			
(b) involve the procurement of: (1) works, estimated to cost fifty million Dollars (US\$50,000,000) equivalent or more per contract; (2) goods, estimated to cost thirty million Dollars (US\$30,000,000) equivalent or more per contract; (3) non-consulting services, estimated to cost twenty million Dollars (US\$20,000,000) equivalent or more per contract; or (4) consultants' services, estimated to cost fifteen million Dollars (US\$15,000,000) equivalent or more per contract.			
Name	Recurrent	Due Date	Frequency
Refund of excess amounts		June 30, 2018	
Description of Covenant.			
If at any time after the Closing Date the Borrower has failed to provide evidence satisfactory to the Bank that the Withdrawn Loan Balance does not exceed the total amount of Program Expenditures paid by the Borrower, exclusive of any such expenditures financed by any other financier or by the Bank or the Association under any other loan, credit or grant, the Borrower shall, promptly upon notice from the Bank,			

refund to the Bank such excess amount of the Withdrawn Loan Balance. The Bank shall cancel the refunded amount of the Withdrawn Loan Balance.

Name	Recurrent	Due Date	Frequency
Additional Effectiveness Conditions		Effectiveness	
Implementation Agreement has been executed on behalf of the Borrower, through MoH, and HZZO and AQAHS			
Name	Recurrent	Due Date	Frequency
Additional Effectiveness Conditions		Effectiveness	
Additional legal matter consists of the following, namely that the Implementation Agreement has been duly authorized or ratified by the Borrower, through MoH, and HZZO and AQAHS and is legally binding upon the Borrower and the HZZO and AQAHS in accordance with its respective terms.			
Disbursement conditions			
1.	For any DLI result under Category (1), (2), (3), (4), (5), (6), (7), (8), (9), or (10), until and unless the Borrower has furnished evidence satisfactory to the Bank that said DLI has been achieved. The evidence shall be verified in accordance with the provisions of the Verification Protocol, and, if applicable, shall have been confirmed by the independent assessment or audit as may be requested from time to time by the Bank.		
2.	<ul style="list-style-type: none"> (i) the Borrower may withdraw an amount not to exceed the equivalent of EUR7,500,000 as an advance; (ii) any further withdrawals requested as an advance shall be permitted only on such terms and conditions as the Bank shall specify by notice to the Borrower; and (iii) if any amount of the advance remains outstanding by the Closing Date, and any verified evidence required to be provided by the Borrower to the Bank under Part B.1 (c) of this Section in relation to said amount has not been furnished to the Bank by the Closing Date, the Borrower shall refund said amount to the Bank promptly upon notice thereof by the Bank. Except as otherwise agreed with the Borrower, the Bank shall cancel the amount so refunded. 		
3.	If the Bank is not satisfied that any of the DLI results has been achieved by the Closing Date, the Bank may, at any time, by notice to the Borrower, decide, in its sole discretion, to (a) reallocate all or a portion of the proceeds of the Loan then allocated to said DLI result to any other DLI result; and/or (b) cancel all or a portion of the proceeds of the Loan then allocated to said DLI result.		

Team Composition			
Bank Staff			
Name	Title	Specialization	Unit
Aneesa Arur	Public Health Specialist	Public Health	ECSH1
Antonia G. Viyachka	Procurement Specialist	Procurement	ECSO2
Baktibek Zhumadil	Operations Officer	Monitoring and evaluation	ECSH1
Carmen Laurente	Senior Program Assistant	Operations/Administrative	ECSHD
Ivan Drabek	Senior Operations Officer	Operations	ECSH3
Johanne Angers	Senior Operations Officer	Institutional Arrangements and Operations	ECSH1
Joseph Formoso	Senior Finance Officer	Disbursements	CTRLA
Julie Rieger	Senior Counsel	Legal Counsel	LEGLE
Lamija Marijanovic	Financial Management Specialist	Financial Management	ECSO3
Marcelo Bortman	Task Team Leader	Health Specialist	ECSH1
Marvin Ploetz	Junior Professional	Cost benefit analysis	ECSH1
Moses Wasike	Senior Financial Management Specialist	Financial Management	ECS03
Natasa Vetma	Senior Operations Officer	Operations, Environmental Assessment	ECSEN
Nurul Alam	Senior Procurement Specialist	Procurement	ECSO2
Rajeev Swami	Senior Financial Management Specialist	Financial Management	ECS03
Vera Dugandzic	Senior Operations Officer	Social Specialist/ Social Assessment	ECSSO
Non-Bank Staff			
Name	Title	Office Phone	City
Antonio Duran	Consultant-Health Specialist		Seville, Spain

I. STRATEGIC CONTEXT

A. Country Context

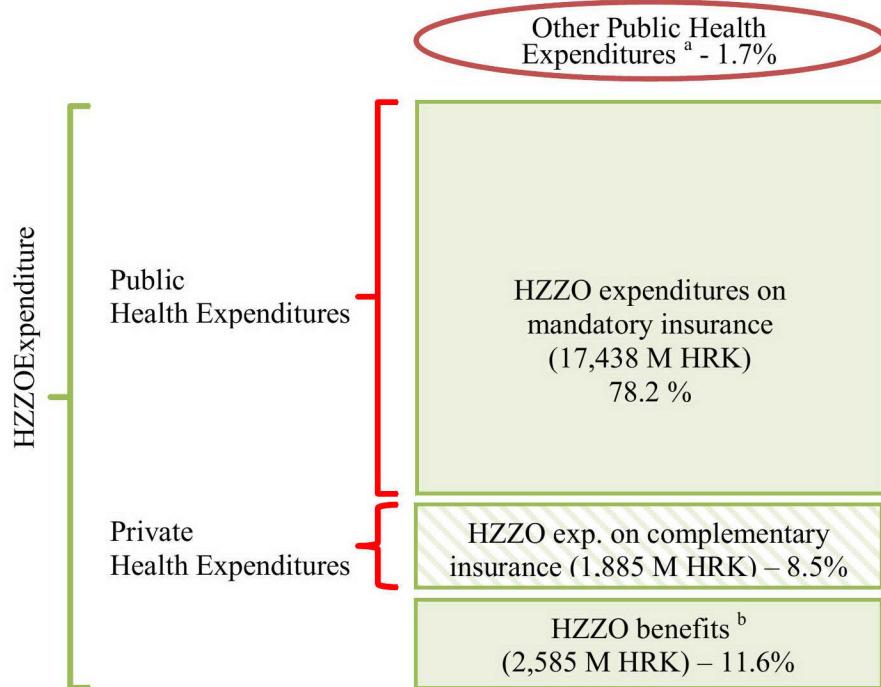
1. **Croatia's economy has been in recession for the fifth consecutive year and the outlook for growth remains weak.** Croatia lost 12 percent of its output since the outbreak of the global crisis, with declines in personal consumption, exports, and investments. Results for the first nine months of 2013 are equally negative, with annual gross domestic product (GDP) falling by 0.7 percent. Although there are signs of bottoming out in 2013, the outlook for growth remains weak, given Croatia's dependence on the economic cycles of the European Union (EU) combined with slow progress in structural reforms. Unemployment rose to above 17 percent for survey-based unemployment by September 2013, the highest among the new EU member states, with the private sector bearing the brunt of the crisis, and jobs lost mainly in manufacturing, construction, and trade.
2. **Prolonged crisis led to a rise in poverty in Croatia.** While, according to official data, the rise in the headcount poverty rate by 2011 was only 3.3 percentage points, micro-simulations based on the 2011 Household Budget Survey suggest that poverty incidence increased to 18 percent in 2012. Using an absolute poverty line fixed at 60 percent of median equivalent consumption, poverty increased by almost five percentage points (to 18 percent) between 2008 and 2012.
3. **Croatia's recent entry into the EU brings new responsibilities and opportunities.** Croatia joined the EU in July 2013 and is now aligning its health care strategy to fit with EU norms/regulations. Croatia's entry into the Excessive Deficit Procedure, with a requirement to bring the deficit under three percent and public debt under 60 percent of GDP by 2016 will necessitate increased fiscal tightening, including in the health sector. Meanwhile, as an EU member, Croatia now has access to significant non-deficit creating EU funds with which to support its investment and reform needs.
4. **Demographic changes in Croatia will probably increase the future strain on public finances and health systems.** The Croatian population has been declining since 1991, with a negative natural population growth rate of 0.5 percent (for the period 1991 to 2012). Since 2001, the 65-and-over age group has grown and is now larger than the population aged 15 and under. This has implications for public finances, since the proportion of working-age population is declining. Furthermore, international experience shows beyond a doubt that the demand for health services will increase in the future as the population ages. This could threaten the financial sustainability of the health system unless changes are made to improve its efficiency and effectiveness.

B. Sectoral and Institutional Context

5. **The Croatian health system produces reasonably good outcomes, but at high costs that are difficult to sustain in an environment of fiscal constraints.** Health sector reforms implemented over the last 20 years have gone a long way to improve the Croatian health system's performance, which produces robust results both in terms of health outcomes and public satisfaction. However, such results come at a high cost. With overall health spending at 7.8 percent of GDP, Croatia is near the top of the list compared to new EU members, and spends significantly more than countries with similar GDP per capita in the region. At 17.7 percent, the health sector's share of public expenditures (roughly EUR 3.1 B – figure 1) is higher than the 15.6 percent average for all EU countries (although some social security expenses beyond the strict health system, such as sick and maternity leave, are also included in that figure). In this fiscally constrained environment, the Croatian health system faces a mismatch among available public resources, growing expenditures, and increasing needs.

6. Health financing is organized according to social health insurance principles. A single fund, the Croatian Institute for Health Insurance (HZZO), covers the entire population (approximately 4.3 million beneficiaries comprised by: 1.52 million active workers, 1.05 million pensioners, 1.15 million family members, and 0.63 million individuals covered by special programs).

Figure 1: Public Health Expenditures



Note: The figure includes what is considered to be public expenditure on health according to current accounting standards, year 2011.

a. Public Health Expenditures related to health services targeting populations.

b. HZZO benefits including sick leave and maternity leave (usually not considered health expenditures in other countries).

7. The needs that Croatia's health system must address have changed as a consequence of the demographic and epidemiological transition in the country. The disease burden in Croatia has shifted from being dominated by maternal and child health and communicable diseases to being dominated by chronic and non-communicable conditions. Heart and blood vessel diseases, for example, are the leading cause of death and account for 49 percent of deaths from all causes; cancer, the second-most-frequent cause, accounts for 26 percent. The two combined are responsible for three of every four deaths.

8. The institutional structure and capacity of the publicly funded health sector in Croatia has not kept pace with this changing landscape. Many health care services in Croatia continue to be delivered inefficiently. Hospitals continue to provide services that can be better and more cost-effectively provided in an outpatient setting. Similarly, Long Term Social Care for the elderly is often provided in hospitals (at higher cost and inappropriate environment for the elderly) rather than in nursing homes or assisted living facilities. At the same time, primary care is not acting as an effective gatekeeper, and its role in preventive care needs strengthening.

9. Increased quality in services and facilities will be necessary for Croatia to sustain good health outcomes at lower cost. The Croatian Agency for Quality and Accreditation in Health Care

and Social Welfare (AQAH) is an independent and not-for-profit public institution created in 2010 that acts as the national accreditation service in the Republic of Croatia. The AQAH was established in order to support implementation of the technical regulations which has been harmonized with the *acquis communautaire* of the European Union. Nevertheless, norms and protocols aligned with best international practice still need to be adopted. Standard practices for more frequent health services are not in place, there is a need to increase secondary prevention to reduce avoidable complications, the surveillance of negative outcomes (sentinel events) is not implemented and quality control mechanisms are not regular practices. A key illustration of this capacity gap is the failure to generate and use disaggregated data, for instance in monitoring and tracking county-level differences in quality and outcomes.¹

10. Croatia has started to implement important health sector reforms to improve efficiency and quality. Croatia recently introduced a number of long-term reform initiatives², including a new performance-based payment mechanism in hospitals, centralized purchasing for nonmedical equipment and consumables, new wide-ranging governance and management arrangements in health care institutions, and new regulations rationalizing pharmaceutical expenditures (which have been identified as regional best practice in a multi-country study conducted by the World Bank³). Complementary and private insurance have also been implemented. As a result of reforms, Croatia now has fewer disparities between counties in terms of funding and human resources.

11. Pharmaceutical sector reforms in Croatia have expanded access while reducing costs. The number of prescriptions in Croatia increased by 69.3 percent between 2005 and 2011. In 2012, the Ministry of Health introduced new regulations promoting the procurement of generics and centralizing procurement using competitive tendering and framework contracts for county hospitals. These reforms have already begun to yield savings; as a direct result of the first round of tenders, the estimated cost savings have been HRK 187 million (approximately EUR 24.5 million). Nevertheless, prescriptions increased further in 2012 along with the average expenditure per insured (from 70.8 in 2011 to 73.1 HRK in 2012) as well as per beneficiary (from 11.5 in 2011 to 12.1 HRK in 2012).

12. Nevertheless, there is still ample scope for reform: a key need is to optimize hospital capacity in Croatia. The average length of hospital stay in Croatia was 9 days in 2011, slightly over the EU average of 8 days. However, Croatia is significantly above the “EU15” countries (4.5 days in Norway and Sweden, 5.5 in France and the Netherlands, 6.5 in Spain and the United Kingdom). To achieve a shorter average hospital stay and so rationalize expensive hospital care, Croatia should provide alternative services for those who should ideally be treated in an outpatient setting, those who should be cared for in nursing homes or assisted living facilities, and concentrate the services for those who should, indeed, be treated as hospital inpatients. To accelerate the implementation of the hospital reform, the MoH recentralized management of hospitals to implement hospital management reforms that will facilitate future implementation of hospital rationalization.

C. Relationship to the CAS/CPS and Rationale for Use of Instrument

13. The proposed operation will contribute to the objective of supporting fiscal consolidation under the public finance pillar of Croatia’s Country Partnership Strategy (CPS) for FY14–17⁴.

¹ Preliminary results show, for example, higher infant mortality rates in the east of the country.

² See section II of the PAD (Program Description).

³ World Bank. 2013a. “Getting Better: Improving Health System Outcomes in Europe and Central Asia.” World Bank, Washington, DC.

⁴ Report No. 77630-HR.

The CPS seeks to strengthen renewed and sustained growth, with emphasis on expenditure rationalization including through rationalized health spending. The public finance pillar envisages a results-based engagement in the health sector to support the Government's sectoral reform efforts in order to sustain good health outcomes at lower cost. Croatia's 2013 Economic Program envisages rationalization of hospitals as part of the first phase of the health system reform. The operation is also aligned with the CPS objective of improving competitiveness and financial sustainability, by involving the private sector through the rationalization of medical and nonmedical services and by increasing the efficiency of the public health care system, and the objective of maximizing the benefits of EU membership by supporting the absorption of EU funds. The proposed Health Program will also contribute to the Bank's Twin Goals by increasing access to higher quality of health care services, especially for the poorest segment of the population, and by supporting a more equitable allocation of available resources for health.

14. The Program-for-Results (PforR) instrument is appropriate for the proposed operation because it focuses on results while addressing the main constraints to their achievement. The Government of Croatia (GoC) has a 2012-2020 National Health Care Strategy with clear goals and activities. Croatia has demonstrated willingness to focus on results, as evidenced by recent health sector reforms that the Ministry of Health has already initiated. The PforR instrument will strengthen the internal reform momentum by aligning incentives to achieve the results set out in the Government's own strategy. The operation will support a defined program within the Government 2012-2020 National Health Care Strategy, and align the incentives of the Ministries of Health and Finance to achieve program results. Strengthening the country systems would also enable Croatia to achieve the ex-ante conditionalities for EU funding mechanisms and formulate strong EU grant proposals, an important future source of funding for the health sector.

15. Other financing instruments were considered but deemed less suitable. An Investment Project Financing (IPF) instrument was considered for the proposed operation, and rejected because inputs and institutional capacity are no longer the main constraints to achieving health sector results in a context of strong implementation capacity.⁵ A Development Policy Loan (DPL) was considered for the operation. However, DPLs focus mainly on legislative reforms and creating an enabling environment for implementing changes. In Croatia, the necessary legislation is in place (supported by a series of DPLs over the last five years) and the Ministry of Health has a National Strategy, attention is now needed on the actual implementation of programs. Furthermore, the fiscal consolidation reforms under the Excessive Deficit Procedure might be supported through a new series of DPLs.

II. PROGRAM DESCRIPTION

A. Program Scope

Government program

16. The GoC's 2012-2020 National Health Care Strategy sets out development directions for the health sector and is the framework for making policy and operational decisions, including the distribution of budgetary resources. The Health Care Act (December 30, 2010) forms the legislative framework of the 2012–2020 National Health Care Strategy. This Strategy is the umbrella document determining the context, vision, priorities, and goals for health care in the Republic of

⁵ The recently completed World-Bank-funded investment project was fully implemented by civil servants of the Ministry of Health without support from externally hired consultancy.

Croatia over this period in the context of the social, legal, and economic framework of the EU. More specifically, the Strategy takes into account (a) Europe 2020, the EU strategy for growth; (b) Health 2020, the new health policy of the World Health Organization European Region; and (c) the 2014–2020 Common Strategic Framework, which forms the basis for financing from EU funds.

17. The 2012–2020 National Health Care Strategy identifies the strategic problems and reform priorities for the health care sector. The strategic problems identified are: (a) poor connectivity and insufficient continuity of health care across levels (primary, secondary and tertiary) in the health system; (b) uneven or unknown quality of care; (c) inadequate efficiency and effectiveness of the health care system; (d) poor or uneven availability of health care across regions; and (e) relatively poor health indicators, particularly those related to risk factors and health behaviors.

18. The estimated total cost of implementing the 8-year Strategy is about HRK 3.1 B (EUR 409 M) (Table 1) or HRK 390 M (EUR 51M) per year, 1.6 percent of overall public health sector spending. The cost is mainly related to investments needed for restructuring the configuration of the health facility networks but also to the cost of introducing quality standards, quality control mechanisms, improve management and critical tools to increase the sector governance, among others. Benefits from these investments will accrue directly, e.g. centralized procurement will reduce the costs of medical supplies and medical devices, or providing more cost efficient health services (outpatient procedures), or indirectly e.g. through increasing quality and reducing readmissions or unfavorable evolution of health conditions and eventually lowering the cost for sick leave.

19. The Government's reform program defines the following eight main priorities:

- (i) **Developing a Health Information System and eHealth.** With a focus on: (a) establish an electronic health record for patients; (b) increase the use of health care and statistical information to support decision making, and establishing the reporting and warning system; (c) generate a functional improvement, modernization and maintenance of the existing information systems in health care; (d) increase standardization and certification, (e) change management and training; and (f) introduce new legal regulations for the sector (estimated at EUR 45 M).
- (ii) **Strengthening and better using human resources in health care.** Developing a strategic plan of human resources, strengthening protection of health care workers, introducing vertical and horizontal mobility, improving specialization planning, adjusting regulations for work after mandatory retirement age (estimated at EUR 12 M).
- (iii) **Strengthening management capacity in health care.** The specific areas of focus include education and differentiation of management, data analysis, planning and researching the health care system, and strengthening the management authority of community health centers (estimated at EUR 14 M).
- (iv) **Reorganizing the structure and activities of health care institutions.** Improving integration and cooperation in primary health care and public health, supporting the establishment of group practices in primary care, and developing and implementing a hospital master plan⁶ to rationalize and modernize hospital services, increasing the continuity of care between hospital and out-of-hospital services, structural modifications

⁶ “Hospital Master Plan” means the Republic of Croatia’s National Plan for the Development of Clinical Hospitals Centers, Clinical Hospitals, Clinics and General Hospitals in Republic of Croatia for the period 2014-2016

to hospitals, and increasing centralized (joint) procurement for hospitals (estimated EUR 260 M). The Ministry of Health initiated the production of a Hospital Master Plan that will analyze in detail the situation in the hospital system and will use the morbidity and mortality data, as well as demographic and other projections, to recommend restructuring and reorganization, down to the level of individual institutions, including hospitals reshaping schemes or changes to the service profile. The hospitals reshaping scheme will introduce substantial adjustment in the way two or more hospitals are merged, organized, managed, and funded, and the necessary actions in the legal, financial, managerial, and other spheres to provide more efficient outpatient care and a reduction in inpatient acute care by converting some of the acute care beds into “social beds,” “long-term or “palliative care beds”, “day care posts,” or eliminating beds for acute care (estimated at EUR 260 M).

- (v) **Fostering quality** in health care through: (a) improving quality of monitoring, health worker education, and better public information for users; (b) developing, implementing, and monitoring clinical guidelines and accreditation; (c) introducing performance-based contracting and performance-based payments, with a specific emphasis on pay-for-quality initiatives; and (d) developing and implementing a formal Health Technology Assessment (HTA) (estimated at EUR 40 M).
- (vi) **Strengthening preventive activities** by increasing the budgetary share of preventive activities in the health budget, improving management of preventive activities and programs including the introduction of performance-based contracting for prevention and strengthening preventive care at the primary care level; strengthening systems to monitor harmful environmental factors and early warning/response systems (estimated at EUR 24 M).
- (vii) **Preserving financial stability of health care** by focusing on strengthening the voluntary health insurance market, improving financial discipline in the health care system through greater accountability, improving the strategic allocation of health resources, and reducing corruption and informal payments (estimated at EUR 10 M).
- (viii) **Improving cooperation with other sectors and society in general** by strengthening intersectoral cooperation (among ministries) with local and regional self-government and with civil society and media (estimated at EUR 4 M).

20. **The Government’s reform program is technically sound and oriented to addressing the reform priorities facing the Croatian health sector**, that is, rationalizing the health facility network, improving quality of health care services and promoting financial sustainability of the health sector. As the steward of the health sector, the Ministry of Health is uniquely positioned to design and implement the big-picture reforms currently needed in Croatia. While ambitious, the Government program has critical components and interventions required for delivering results, and the expected long-term outcomes (2020) are achievable.

The Program

21. The proposed Program to be supported by the Bank would cover 5 out of the 8 priorities defined in the Government’s 2012-2020 National Health Care Strategy (the Government program), within boundaries defined in terms of: (a) Program duration; (b) Priorities supported; and (c) Institutions involved. A detailed Program description and a Program results chain is presented in Annex 1.

- (a) **Program duration.** Program implementation period is from 2013 to 2017.
- (b) **Priorities supported.** To improve two critical areas of the health services (quality and efficiency) and, considering the objectives of the CPS, it was agreed with the Government that the Program would include 5 out of the 8 priorities of the 2012–2020 National Health Care Strategy⁷. These priorities are oriented towards addressing the main reform challenges facing the Croatian health sector, that is, rationalizing the health facility network, improving quality of health care services, and promoting financial sustainability of the health sector. These include:

Priority iii Strengthening management capacity in health care and Priority iv Reorganizing the structure and activities of health care institutions, including: Implementing the hospital master plan, implementing hospital reforms and governance and management changes, promoting group practices for primary health care doctors, expanding secondary-level outpatient services, including high-resolution outpatient centers, redefining long-term health care services and palliative care.

Priority v Fostering quality in health care and Priority vi Strengthening preventive activities, including: implementing of a hospital accreditation, implementing Health Technology Assessment (HTA) of selected new health technologies, building a body of clinical protocols and care pathways, detecting and proper recording of specific “sentinel events for quality”, implementing technical audits and payment mechanism to incentivize the use of clinical guidelines, using of the existing e-prescription system for quality control purposes.

Priority vii) Preserving financial stability of health care, including: development of centralized procurement of medical and non-medical supplies, rationalization of nonmedical services, strengthening the performance-linked component in payments to hospitals and outpatient services, strengthening the MoH capacity to develop and present proposals to be financed by EU structural funds.

- (c) **Institutions involved.** Three main institutions will be involved in the implementation of the Program. The **Ministry of Health** will have the leading role in terms of defining policies and implementing the Government program but also because most of the hospitals were re-centralized (under managerial authority of the Ministry of Health) as an initial step to implement the Hospital Master Plan. While the **Croatian Institute for Health Insurance** (HZZO) will not directly implement the Program activities, it will play a significant role by adjusting their recurrent activities to support the Government program. Finally the **Agency for Quality and Accreditation in Health Care and Social Welfare** would have a role in providing a service to implement the accreditation process and in supporting the design of technical audits.

⁷ Though the Bank will maintain policy dialogue with regards to priorities i, ii, and viii, these priorities were not included in the Program because: (i) even when it would be good to expand the Information Technology (IT) system, the current system has been found adequate for the implementation of the health sector reform; (ii) Human Resources (HR) issues in Croatia would pose significant risks to Program implementation; and (iii) the involvement of other sectors would make the Program even more complex.

Table 1. Government program 2012–2020 (EUR Million)

	2012-2017	2018-2020	2012-2020
1. Developing a Health Information System and eHealth	30	15	45
2. Strengthening and better using human resources in health care	7	5	12
3. Strengthening management capacity in health care	10	4	14
4. Reorganizing the structure and activities of health care institutions	125	135	260
5. Fostering quality in health care	25	15	40
6. Strengthening preventive activities	14	10	24
7. Preserving financial stability of health care	6	4	10
8. Improving cooperation with other sectors and society in general	2	2	4
Sub-total Strategies 3 , 4, 5, 6 and 7 between 2012-2017	180		
Total	219	190	409

Expenditure framework analysis

22. Estimated costs appear adequate to achieve key Program objectives; nevertheless some of the key investments would require the absorption of EU funds. While the estimated total cost to implement the 8-year Government program is about EUR 51 M per year (EUR 409 M or 1.6 percent of overall public health sector spending), some critical interventions (civil works and medical equipment) may seek EU funds in order to be implemented. Partially relying on EU funds creates a financing risk for the Government program (and the proposed Program), but the Program itself constitutes an opportunity to help the Government fulfil the ex-ante conditionalities to absorb EU funds and to support the efficient use of these resources.

Table 2. Program Financing

Source of Financing	Amount	
	EUR Million	US\$ Million Equivalent
GoC*	105.0	144.8
IBRD	75.0	103.5
Total Program Financing	180.0	248.3

* GoC may seek EU funds to partially finance its program

Table 3. Estimated Profile of Program Expenditures

	EUR Million	US\$ Million Equivalent
Civil Works	95.0	131.0
Medical Equipment and Goods	25.0	34.5
Technical Assistance	4.0	5.5
Human Resources	8.0	11.0
Services and Operational Cost	48.0	66.3
Total	180.0	248.3

23. The MoF and the MoH have agreed to include in the MoH budget additional resources to finance critical Program activities, in particular those oriented to increase quality control, management and cost efficiency. In parallel, greater efficiency in the health sector supported by the

Program will reduce recurrent hospital arrears and allow the reallocation of resources currently being used to cover these arrears to finance Program activities.

24. The investments will generate positive returns to the health sector over the lifetime of the Program. The cost benefit analysis presented in annex 4 (table 15) shows that the sum of costs and benefits (i.e. the Net Present Value [NPV] of the interventions) is largely positive and the estimated Internal Rate of Return (IRR) ranges between 4.85 and 9.83 percent considering only the first Program phase 2012-2017 and between 17.38 and 24.52 percent for the full program duration 2012-2020, depending on the inflation estimate used. This analysis clearly shows the positive development impact of the proposed Program. Based on this analysis, sustainability seems not to be an issue in the short term; nevertheless, in the long term, the success of the Government program will result in better health outcomes (greater life expectancy) and, therefore, a growing demand for health services from an aging population.

B. Program Development Objective/s (PDO)

25. The proposed PDO is *to improve the quality of health care and efficiency of health services in Croatia.*

C. Program Key Results and Disbursement-Linked Indicators

26. The key results for the Program include the following:

- i. The first phase of the hospital master plan implemented and achieving all of the following milestones: (a) the total number of acute care beds reduced by 20 percent, from 15,930 to 12,800 (DLI 1); and (b) 80 percent of rationalized hospitals without arrears incurred during the preceding calendar year (DLI 3).
- ii. Quality control procedures in place including: (a) at least 40 percent of best-performing rationalized hospitals are publicly disclosed (including results) based on the technical audit in the preceding 12 months (DLI 5); and (b) at least 50 percent of rationalized hospitals accredited by AQAHS through the Acceptable Accreditation Process⁸ (DLI 6).

27. Disbursement-Linked Indicators were selected to identify key results linked to the Program. Attention has been paid to a number of criteria. First, the Disbursement-Linked Indicators (DLIs) are achievable and challenging at the same time, combining ambition and feasibility so that the financial risk attached to each DLI would have the right impact. Second, intermediate and end-of-Program targets for all DLIs were chosen to allow an adequate disbursement flow (with 50 percent for achieving the intermediate target) while maintaining incentives to achieve end-of-Program targets for second and final disbursements. Third, the DLIs are strongly aligned with government priorities, which should guarantee both synergistic effect and sustainability.

28. The DLIs for the Program for Results include the following:

DLI 1. Total number of hospital beds in Rationalized Hospitals⁹ classified as acute care beds.

DLI 2. Number of “Hospital Reshaping Scheme”¹⁰ projects implemented.

⁸ Hospital accreditation is an assessment process used to measure the level of performance of health organizations in relation to established standards and a tool to implement quality improvements.

⁹ As defined in the Hospital Master Plan.

- DLI 3.** Percentage of rationalized hospitals without arrears incurred during the preceding calendar year.
- DLI 4.** Percentage of all surgeries included in the elective surgeries list¹¹ performed as outpatient surgeries in the preceding six months.
- DLI 5.** Percentage of best-performing rationalized hospitals which are publicly disclosed (including results) based on the technical audit¹² in the preceding 12 months.
- DLI 6.** Percentage of rationalized hospitals accredited by AQAHS through the Acceptable Accreditation Process.
- DLI 7.** Percentage of identified doctors¹³ with whom corrective course of action has been discussed on a person-to-person basis in the preceding six months.
- DLI 8.** Percentage of total public spending per fiscal year on medical consumables, drugs, and devices for hospital (inpatient and outpatient) services made through centralized procurement/ framework contracts and disclosed on the MoH website.
- DLI 9.** Percentage of primary health care doctors in the Republic of Croatia working in group practices.
- DLI 10.** Percentage of hospitals with surgery wards that have established quality- and safety-related sentinel surveillance schemes that are reporting the rates of specific events¹⁴.

D. Key Capacity-Building and Systems-Strengthening Activities

29. **The implementation of the first phase of the Government program will have benefits from several technical assistance activities to improve planning and to strengthen and adjust the institutional framework and monitoring and information system.** With the support of the World Bank Development of Emergency Medical Services and Investment Planning Project (DEMSIPP, closed on December 31, 2013), the Ministry of Health and the Croatian Institute for Health Insurance (HZZO) have: (a) conducted a hospital rationalization analysis to develop a hospital rationalization plan; (b) developed EU proposals to mobilize resources to finance investments in support of the hospital rationalization process; (c) assessed options for rationalization medical and nonmedical hospital services; (d) implemented a communication campaign to inform the public about the benefits of the health sector reform being implemented; (e) designed the Business Process Reengineering in the HZZO; and (f) implemented a Geographic Information System (GIS) that will improve data availability and allow proper monitoring and evaluation, which requires a reliable and de-aggregated information system.

¹⁰ Following finalization of the Hospital Master Plan, the Ministry of Health will identify two or more potential hospital reshaping schemes in agreement with the Bank and implement at least two of the agreed projects to their full functionality, as defined in the MoH approved proposals.

¹¹ Elective surgeries: Abdominal hernia surgery, cataract surgery, local excision and removal of internal fixation, except on hip and femur, palmar fasciectomy for dupuytren's contracture, tonsillectomy (information will be disaggregated by gender).

¹² Technical audits are based on explicit key performance indicators (KPI) as defined by the HZZO, and quality indicators (QI) as defined by the AQAHS.

¹³ Doctors for whom HZZO-defined prescription patterns in the preceding six months were found to be “unsatisfactory”.

¹⁴ Including: (a) non-traumatic, diabetes-related lower-limb amputations; (b) surgery on the wrong patient and surgery of the wrong body part; and (c) postoperative pulmonary embolism and deep vein thrombosis (information will be disaggregated by gender).

30. The Ministry of Finance and the Ministry of Health agreed that EUR 7.5 million received by the Ministry of Finance under the PforR would be allocated from the MoF budget to the MoH to finance technical assistance to support the strengthening process of health sector regulations and planning. These funds would finance, among other things: (a) the design of protocols and support the AQAHS strengthening to develop tools to implement technical audits, to further develop hospital accreditation and to implement other quality control mechanisms; (b) the strengthening of the Health Technology Assessments (HTAs); (c) the development of detailed plans for the hospital reshaping schemes; (d) the design and implementation of programs to strengthen radiology and radiotherapy safety and hospital waste management; (e) the development and management of projects, some of which could be financed through EU or other sources of funding; and (f) the development and implementation of communication strategies.

III. PROGRAM IMPLEMENTATION

A. Institutional and Implementation Arrangements

31. The four most critical stakeholders involved in implementing the proposed Program are the Ministry of Health (MoH), the Ministry of Finance (MoF), the HZZO, and the AQAHS. In the context of the proposed Program, the MoH is the primary beneficiary that will be responsible for the implementation of the health sector reform and restructuring of the Croatian health care system according to priorities and directions defined in the 2012-2020 National Health Care Strategy. The MoF will provide political and budget support to the MoH in implementing the Government's reform program and receive the transfers linked to the achieved DLIs. The MoH is also responsible for implementing reforms that will achieve the results targeted by the proposed Program. As the single payer in the mandatory health insurance system, the HZZO has a central role to play in achieving the proposed Program results (for example, contracting and payment based on Key Performance Indicators and Quality Indicators, stimulating outpatient surgeries, monitoring prescription patterns, auditing hospitals, and incentivizing group practices). The MoH is, however, responsible for supervising HZZO activities, and contributions to HZZO revenues for mandatory insurance constitute a part of the State Budget revenue. The MoH is currently also responsible for managing all (except one) hospitals. In the long term, however, once the financial rationalization of hospitals is completed, the MoH will once again decentralize management. The AQAHS is responsible for supporting the HZZO in ensuring the quality of contracted providers from whom the HZZO purchases mandatory health insurance services. The main contribution of the AQAHS is to facilitate and implement accreditation of health care institutions and define standards of quality in service provision.

B. Results Monitoring and Evaluation

32. In order to monitor progress toward achieving the PDO, the Program Results Framework will use three PDO-level Results Indicators. Four out of the ten DLIs will contribute to demonstrate the progress toward the achievement of the three PDO-level indicators while the other six DLIs, along with some other indicators used for tracking health outcomes across World Bank-financed projects (the so-called Core Sector Indicators), will serve solely as Intermediate Results Indicators. The full Results Framework is included in Annex 2.

33. Measurement and verification of the progress toward achievement of the Program's objectives will be based on the country's existing monitoring and evaluation systems, largely because the proposed operation would contribute to the Government's program of health sector reforms by disbursing against achievement of a subset of its key results. The HZZO will be

responsible for collecting monitoring data and verifying documentation for most of the Intermediate Results Indicators and providing aggregated reporting on achievement of related results to the Ministry of Health on a semiannual basis. Specifically, the HZZO health information systems, strengthened under the DEMSIPP, will be the primary source of monitoring data related to the HZZO's role in contracting health services and quality monitoring/control of service delivery, such as the total number of contracted acute care beds, performed elective surgeries, and doctors' prescription patterns. Hospital-level data, such as hospital financial plans and reports, will be reported by the concerned hospitals directly to the HZZO. The AQAHs' reports will provide information for monitoring the DLIs targeting quality improvement (accreditation of health care institutions and ensuring pre-defined standards of quality in service provision).

34. The Ministry of Health, through its Directorate for Health Protection, will be responsible for assembling all the data and documentation necessary for monitoring, verification, and evaluation purposes, including the system-level data for the following three Intermediate Results Indicators, namely public spending made through centralized procurement/framework contracts, implementation of hospital reshaping projects, and data related to establishment of group practices.

Given that the Ministry of Health will be the primary beneficiary responsible for using the PforR funds, it will bear the ultimate responsibility for monitoring overall progress toward achievement of the Program's results, as well as for ensuring timely collection and provision of monitoring data and verification documents to the World Bank and Ministry of Finance.

35. The Bank will provide implementation support based on the detailed Implementation Support Plan (Annex 9), whose focus would be on timely implementation of the agreed Program Action Plan (Annex 8), provision of necessary technical support, conducting of fiduciary reviews, and monitoring and evaluation activities. These would be done as part of regular implementation support visits and through reviews of data and documents, discussions with government and nongovernment counterparts and relevant partners, and visits to Program sites and facilities, as needed. With regard to monitoring and evaluation, the Bank will pay particular attention to reviewing the monitoring data and verification documentation for the Program's results and DLIs submitted by the Ministry of Health, retaining the right to make the final decision, for disbursement purposes, on whether the agreed DLIs have been achieved.

C. Disbursement Arrangements and Verification Protocols

36. The total amount of loan proceeds will be divided into ten equal allocations to the ten DLIs. The financing amount allocated to each DLI will be further broken down into two equal sub-allocations (50 percent each), with corresponding amounts to be disbursed upon verified achievement of the two consecutive target values for each given DLI. Scalable disbursements will be applied to the second 50 percent sub-allocation to DLIs 1, 3, 4, 5, 6, 7, 8, 9 and 10. These two approaches are intended to stimulate and reward gradual but continuous improvements and maintain motivation and commitment to achieving the development objectives over the implementation period.

37. To support a faster implementation of activities to achieve DLIs, an advance equivalent to one DLI (Euro 7.5 million – US\$10.3 Equivalent) will be disbursed once the proposed Program is declared effective and such advance would be available throughout the project implementation, on a revolving basis. If by the closing date the Advance, or some portion of the Advance is still outstanding and a DLI or combination of DLIs are not met, then the Government will need to refund the outstanding balance of the Advance.

38. The DLI Verification Protocols (Annex 3) include clear definitions of the ten DLIs mutually

agreed upon with the Ministry of Health as well as baseline and target values, detailed descriptions of what would be considered as the DLIs' achievements, and procedures for their measurement. Timeline for targets is indicative only and withdrawal applications for disbursements can be made at any time, as soon as they are achieved, singly or in groups. Since the Program aims at improvements at the health system level by strengthening its quality, efficiency, and sustainability aspects, the measurement and verification of the progress toward achievement of the Program's objectives will be based on the country's existing monitoring and evaluation systems. Specifically, the HZZO health information systems will be relied upon to collect and provide aggregated reporting of monitoring data related to the HZZO's role in contracting services and monitoring/control of quality of service delivery, such as the total number of contracted acute care beds, performed elective surgeries, and doctors' prescription patterns.

39. The Bank task team would routinely monitor progress towards DLI achievement based on the agreed monitoring and reporting arrangements, including the Program's progress reports and the DLI Verification Protocols. Upon achievement or partial achievement of a DLI, the Ministry of Health would provide the Bank task team with evidence supported by financial reports, billing reports and the relevant information systems of all the institutions involved. Following the Bank's review of the complete documentation, including any additional information considered necessary, the Bank would send an official communication to the Ministries of Health and Finance as to the achievement of the DLI(s) and the level of Program financing proceeds available for disbursement against each particular DLI, including any partial disbursement for the scalable sub-allocation of DLIs 1, 3, 4, 5, 6, 7, 8, 9 and 10. If applicable, the Bank would request assessments/audits by independent agencies acceptable to the Bank¹⁵ to verify the data supporting the achievement of the DLI/DLIs.

40. Disbursement requests (Withdrawal Applications) would be submitted to the Bank by the Ministry of Finance using the Bank's e-disbursement functionality and standard disbursement form along with Request for Advance signed by the government's authorized signatory. During the project life, in addition to disbursement requests for the advance amount of Euro 7.5 million maximum for not yet achieved DLIs, the Ministry of Finance would also be able to submit disbursement requests for already achieved DLI(s) for the amounts above the mentioned available advance. Such disbursement requests could be submitted individually on achievement of a single DLI or grouped together as a set of DLIs are achieved in a given period and submitted as a consolidated disbursement. A copy of the Bank's official communications confirming the DLI achievement should be attached to the disbursement requests.

IV. ASSESSMENT SUMMARY

A. Technical

41. Although the Croatian health system produces fairly good outcomes, these have been achieved at costs that are difficult to sustain in a fiscally constrained environment. At the same time, an aging population, shifts in the disease burden toward a dominance of chronic and non-communicable conditions where quality interventions can increase secondary prevention (and reduce complications), and the inevitable upward pressure on health care costs from technological advances imply that health expenditures will continue to increase in the future.

¹⁵ For example, the Croatian Bureau of Statistics or the Andrija Stampar School of Public Health (University of Zagreb).

42. The Government program, which sets out the policy and operational framework for the health sector in Croatia, echoes this diagnosis and identifies improving health sector quality (understood as the appropriateness and effectiveness of health services) and increasing efficiency of service delivery as priority concerns. As the steward of the health sector, the MoH is uniquely positioned to design and implement the big-picture reforms needed to improve quality and efficiency and, therefore, improve the financial sustainability of the health sector.

43. The proposed Program has many of the critical building blocks required for delivering results. These include: (a) a strong political commitment to the health reform, which is bolstered by the Program-for-Results instrument; (b) good harmonization between the Program and the larger policy framework for health sector reform in Croatia, since it contributes to the main challenges identified in the 2012-2020 National Health Care Strategy; (c) a technically sound Government program oriented to addressing the strategic reform priorities facing the Croatian health sector, that is, rationalizing the health facility network, improving quality of health care services, and promoting financial sustainability of the health sector; (d) clearly defined interventions which are technically appropriate to improving efficiency and quality in the Croatian context, and are supported by emerging international experience in the area; and (e) an agreed set of SMART (Specific, Measurable, Attainable, Relevant, and Time-bound) results indicators to assess and reward Program performance.

44. Given the wide range and complexity of the reforms to be supported by the Program, the economic rationale has been assessed by conducting cost-effectiveness and a cost-benefits analysis for the proposed Program. The economic analysis compares some specific services of the current service delivery system against the new proposed service delivery approaches. The outcome of the analysis suggests that all proposed adjustment to the system supported by the proposed Program would lead to a reduction in the unit cost of service delivery, more standardized services, an increase in the implementation of secondary prevention and, hence, result in greater efficiency and capacity of the health sector to respond to the increasing demand for health care services.

B. Fiduciary

45. **Overview of procurement environment.** The procurement under the Program will be carried out in accordance with the Croatian Public Procurement Act (PPA), ensuring that the financing proceeds will be used for the purposes intended, with due attention to the principles of economy, efficiency, effectiveness, transparency and accountability. The public procurement system in the Republic of Croatia is well structured and has transposed the EU *acquis communautaire*. It is governed by the new Public Procurement Act (PPA), which became effective as of January 1, 2012. The PPA was amended in June 2013 to address changes in some of its provisions with regard to Croatia's accession to the European Union on July 1, 2013. It regulates the procedures for award of public contracts and framework agreements for the procurement of supplies, works or services, legal protection in relation to those procedures and the competences of the central state administration body competent for the public procurement system. Pursuant to the PPA, in 2012 the Government of the Republic of Croatia has passed all related subordinate regulations with regard to drafting tender documents, issuing procurement notices, use of common procurement vocabulary (CPV), and control over the implementation of the PPA.

46. Based on the fiduciary assessment, it is considered that the procurement processes followed within the framework of the MoH are well defined. The planning, bidding, evaluation, contract award and contract administration arrangements and practices provide reasonable assurance that the Program will achieve its intended results through its procurement processes and procedures. They are aligned with the requirements of the public procurement legislative framework in the country.

The annual procurement plans and all its updates as well as the contract award information are published, as required by the PPA. The most commonly used procurement procedure is the open tendering procedure. There are no standard tender documents, but the documents are drafted in accordance with the requirements defined in the Regulation on the methodology for drafting and handling tender documents and tenders. The procurement notices and the tender documents, including the technical specifications, evaluation criteria and draft contract, are uploaded on the official platform (*Narodne novine*) and could be freely accessed and downloaded by interested bidders. Tenders are opened in public and minutes of public opening are prepared. There is a considerable capacity within the framework of the agency for management and implementation of public procurement. Officials involved in carrying out of the procurement process have a formal certification in procurement as required by the PPA.

47. Nevertheless, there are areas which need enhancement and further improvement. They are related mainly to the long time that is taken for drafting and preparing the technical specifications for medical equipment, consumables, materials and medications for hospitals; the lack of contract administration and monitoring system; and the need for further building and sustaining capacity for procurement management, development and application of e-procurement, and drafting a program operational manual. The procurement risks and proposed mitigation actions are provided in Annex 5 of this Program Appraisal Document (PAD).

48. **Complaints Handling Mechanism.** The existing PPA elaborates on the legal protection and appeals mechanism, which are respected by the Ministry of Health and the relevant hospitals central bodies. The independent state body responsible for reviewing appeals in connection with public procurement procedures is the State Commission for Supervision of Public Procurement Procedures. All appeals with regard to a public procurement procedure are submitted to the State Commission. The PPA defines the time limits for lodging an appeal. The decisions of the Commission are published on its website and the information is updated on a daily basis. The time for resolution of the appeals varies depending on the nature of the complaint, which may take at times a month or even longer. The most common types of appeals with regard to the public procurement procedures carried out by the Ministry of Health and the hospitals are with regard to the technical specifications or the decision on contract award.

49. **Financial Management.** The Program will rely on the existing financial management systems and institutions. Those systems and institutions have been assessed and are considered robust enough to provide reasonable assurance that the financing under the Program is used for intended purposes, with due regard to the principles of economy, efficiency, effectiveness, transparency and accountability. Specifically, Croatia's financial management systems for the Program (planning, budgeting, accounting, internal controls, funds flow, financial reporting, and auditing arrangements) provide reasonable assurance on the appropriate use of Program funds and safeguarding of its assets.

50. The national institutions responsible for implementing central procurement (for the health sector), the administrative budget of the MoH, and the system for reimbursement payments to hospitals all function relatively well and adhere to national laws and regulations. There is a strong element of managerial accountability over the use of budget resources, which is supported through the annual declaration made by the head (Minister or equivalent) of each budget institution as required under the Fiscal Responsibility Act.

51. The national framework and requirements for in-year and year-end financial reporting are comprehensive and there is a high degree of compliance from all institutions involved (central budget institutions as well as hospitals). Internal controls (including internal audit) are in place for central institutions as well as at the level of hospitals. The HZZO's Service for Control Directorate

conducts regular reviews over the execution of contractual obligations of healthcare institutions and of health professionals (including those in private practice) and those who provide health related services (e.g., procurement and distribution of medicines, orthopedic and other aids (hereinafter: the contractual entities). External oversight is also strong as the State Audit Office has a comprehensive five-year program for performance audits and conducts annual financial audits for each major budget institution, including financial audits of the MoH and HZZO, respectively.

52. The Program Action Plan includes support for the ongoing restructuring and strengthening the internal audit function of hospitals and of the MoH. Efforts include the creation of five Regional internal audit units to ensure adequate coverage, application of a risk-based approach and adoption of an integrated approach that addresses both compliance and performance audits. Progress will be monitored as part of the Bank's implementation support.

53. For purposes of annual financial statements auditing and reporting, the Bank will rely on the existing institutional audited financial statements of the MoH and HZZO. Consistent with the reporting periods prescribed in Croatian legislation, reports will be submitted annually within 12 months following the end of each reporting period.

54. **Governance.** As part of the entry requirements into the European Union (EU), to which Croatia became a full member on July 1, 2013, the country's institutions responsible for enforcing the rule of law and combating corruption have been assessed as having met the comprehensive requirements of the *acquis communautaire* (the *acquis*), the body of laws and directives each member state must meet in order to be accepted as a full member of the EU. A February 2014 EU review report¹⁶ observes that extensive information was collected as part of the pre-accession process and related monitoring. More broadly, the monitoring of anti-corruption efforts that has been part of the enlargement process has brought many useful lessons that could have been applied in the context notably factors affecting sustainability of an anti-corruption agenda. The report cites, as a good practice example, the track record of the Bureau for Combating Corruption and Organized Crime (USKOK) of proactive investigations and successful prosecutions including in notable cases concerning high level elected and appointed officials. The report also cites the March 2013 establishment of a public procurement electronic database that provides public access to key procurement information. A country-specific annex on Croatia observes progress in addressing healthcare sector observations from a 2011 UNODC study, notably those included in the updated national anti-corruption action plan and the Agreement on Ethical Advertising of Medical Products.

55. This operation will rely on national institutions and public bodies responsible for combating fraud and corruption – i.e. the government will use its own systems for responding to concerns (from citizens, contractors, etc.) related to governance.

56. Within the context of this health Program, the three main areas identified as relevant for assessing the governance arrangements include:

- **Transparency, integrity and accountability in selection of the Program's activities.** The first step in assuring transparency, integrity and accountability in selection of the activities included in the Program was made by focusing Program activities on the strategic problems and priorities identified in the adopted 2012–2020 National Health Care Strategy. The preparation of the strategy included a wide consultation and a consensus building among all key stakeholders.

¹⁶ “Report from the Commission to the Council and the European Parliament, EU Anticorruption Report” dated February 3, 2014.

- **Systems' capacity to handle risks of fraud and corruption throughout the Program implementation.** The most solid aggregated indicator of the borrower's systems' capacity to handle risk of fraud and corruption is the recent Croatian EU membership, as establishment and proven reasonable effectiveness of all systems relevant for handling of fraud and corruption was one of the key and the most scrutinized criteria for Croatian EU membership. More specifically, Croatia has EU harmonized legislation framework and institutional arrangement for public procurement. Therefore, the systems handling the risks of fraud and corruption in implementation of the Program are in place and functioning.
- **Integrity issues within the Croatian health sector supported through the Program.** The 2012–2020 National Health Care Strategy acknowledges the corruption risks present in the health sector and consequently includes the priority measures to combat corrupt practices (including addressing non-formal payments) in the sector. More specifically, regarding the expected impacts of the Program on the integrity within the Croatian health sector, it is clear that the Program's focus on improving systems' efficiency (through better management, structure, organization and control) directly contributes to improving the operating environment which leaves less space for corruptive behavior.

C. Environmental and Social Effects

57. The Environmental and Social System Assessment (ESSA) has taken into consideration the requirements of the OP 9.00 Program-for-Results Financing to identify any adverse environmental and social impacts that the Program could generate, including having an upfront risk screening of key potential environmental and social effects (benefits, impacts and risks). In addition, ESSA identified opportunities to enhance the quality of the Program through better environmental performance.

58. **The Program's social system was assessed as adequate without substantial negative impacts on the society.** The overall risk profile is assessed as moderate as the Program is mainly focused on the improvements and better tailoring of the health care services to the needs of the Croatian citizens (women and men are expected to benefit equally), increasing standards and quality control mechanisms of the health system, offering higher guarantees to users, and promoting the financial stability of the health sector.

59. **There are no adverse social impacts associated with land acquisition and involuntary resettlement** as the Program will not finance any construction of new facilities but rather rehabilitation works within the existing hospital structures, if deemed necessary. Given the current political context, a potential social impact could result from planned health service rationalization, which might meet a certain amount of resistance from different stakeholders. To that effect, the mitigation measures the ESSA underlines include transparency in the process, outreach and consultation with a wide range of stakeholders, a participatory approach, and public information campaigns to promote the benefits that the Program would bring to the population. Additionally, the Program will include measures to address the issue of socioeconomic inequalities, such as regional disparities that exist in Croatia between urban and rural areas, through an adequate collection of data at the county level and their monitoring under the Program.

60. **Transparency, integrity and accountability of Program activities have been promoted through the development and adoption of the 2012-2020 National Health Care Strategy,** which underwent a broad consultation and consensus building process among all key stakeholders in an open and democratic way.

61. Mechanisms for grievance and appeals exist and are in use. The health care system changes are based on participatory approach. Patients' rights protection procedures and grievance mechanism are developed and provide significant level of public accountability. Positive examples are the 2012-2020 National Health Care Strategy development process, meetings of patients' representatives once a week with the Minister and public free phone services for patients' complaints so-called "White phone" (Bijeli telefon) established by the Ministry of Health.

62. The initial environmental screening suggests that activities financed through the Program will generate a number of positive cumulative environmental impacts, covering the whole spectrum of nation-wide health improvements. Benefits include improved overall health status of the vast majority of citizens given improved access to, quality and efficiency of essential health services. The potential negative impacts coming from reconstruction works are not considered to be of a larger significance as Croatia proves that relevant regulatory and institution framework is sufficient to guarantee environmentally sound construction management.

63. The Program itself does not have explicit environmental management objectives. Yet, the Health sector in Croatia has been assessed through the ESSA process from two main environmental aspects: (a) the health sector itself is a polluter; and (b) the health sector has an important role in national environmental protection and management. As a polluter, the sector is the producer of medical waste and point source of air pollution originating from its heating systems and incinerators. In addition, it is recognized as a sector that consumes significant amounts of energy and water. At the same time, two segments of the health care system have particularly important roles within the national environmental protection system: (a) Directorate for Sanitary Inspection of the Ministry of Health; and (b) Environmental Health Ecology Service within the Croatian National Institute for Public Health. These, under their jurisdiction, cover a number of tasks and responsibilities including ionizing and non-ionizing radiation, genetically modified foods related food safety, safe management of chemicals, biocides and other substances that present health hazard, safety of common use items (primarily cosmetics, detergents, toys and items that get in contact with food), sanitary safety of drinking water, and noise pollution. The introduction of quality and accreditation systems which include environmental indicators will contribute to general enhancement of environmental performance in hospitals. **The overall risk of environmental systems under the Program is assessed as moderate.**

D. Integrated Risk Assessment Summary

1. Integrated Risk Assessment Summary

Risk	Rating
Technical	Moderate
Fiduciary	Moderate
Environmental and Social	Moderate
Disbursement-Linked Indicator	Moderate
Overall Risk	Moderate

2. Risk Rating Explanation

64. Overall, the implementation risk rating for the proposed operation is Moderate. Implementation capacity in Croatia is relatively strong, especially in the health sector, and outcomes of the assessments confirm that country systems are quite robust given that Croatia prepared for EU accession in the previous years and became an EU member in July 2013. A Program Action Plan

(see below and Annex 8) has been prepared to address the identified weaknesses that may hinder Program implementation. The main source of **technical risk** to the proposed operation arises from the wide range and complexity of reforms proposed in the Government program. To mitigate this risk, the operation will support capacity building through an Advance at the outset of the Program. **Fiduciary risk** has been assessed as Moderate based on the observation that identified deficiencies have already been recognized and remedial actions are being implemented. Existing institutional structures include robust self-checking mechanisms to ensure that critical issues are identified and addressed promptly. **Environmental and Social risks** are moderate reflecting that both systems were assessed as adequate and the Program does not have substantial negative impacts on society and rather helps enhance environmental and social aspects.

E. Program Action Plan

65. The Program Action Plan (Annex 8) was developed to support the capacity needs highlighted under Section II.D, Key Capacity Building and Systems Strengthening Activities, of this PAD. The major gaps identified in the health system are: (a) the inability of the existing facilities (mostly hospitals) to respond to new health technologies and consequently to new health needs; (b) the lack of quality control mechanisms to improve and increase quality standards; and (c) the need for greater efficiency to respond to the growing demand for health services (aging of population) while ensuring financial sustainability of the health care system. The Program Action Plan is a continuation of the activities supported under the DEMSIPP financed by the World Bank, including the design of protocols and tools for technical audits and other quality control mechanisms, strengthening of Health Technology Assessments, development of detailed plans for the hospital reshaping schemes, and development and implementation of communication strategies.

66. In terms of environmental aspects of the reform, the overall hospital waste management performance of Croatia is satisfactory (but poor in small private practices). However, as a new EU member, Croatia will need to implement a comprehensive Environmental Management System as a framework, including awareness raising and training of the staff, performance monitoring and control, reporting, improvements in waste collection infrastructure. This kind of changes will also be needed for addressing Radiological and Nuclear Safety. In the area of Energy Efficiency (EE), initial training of potential heads of EE teams in the Ministry and all major hospitals led to the preparation of a pipeline of EE projects for the Croatian health sector.

67. The actions to deal with the potential impact of the four main social areas (a. internal and external resistance to changes, b. social inclusion and equity in access to health care services, c. social accountability of the health care system, and d. potential impact on the employees) will require an effective public awareness and communication outreach; support to accountability mechanisms; and a program to retrain health workers to minimize the impact of the reform.

Annex 1: Detailed Program Description

1. The proposed Program-for-Results (PforR) operation would contribute to the Government Health Sector program and, therefore, health sector reform as a whole, by disbursing funds against achievement of a subset of its key results. The proposed Program is focused on a subset of priorities in the 2012-20 National Health Care Strategy (Government program), which will serve as the policy and operational framework for the proposed operation.

Table 4. 2012-2020 Government program

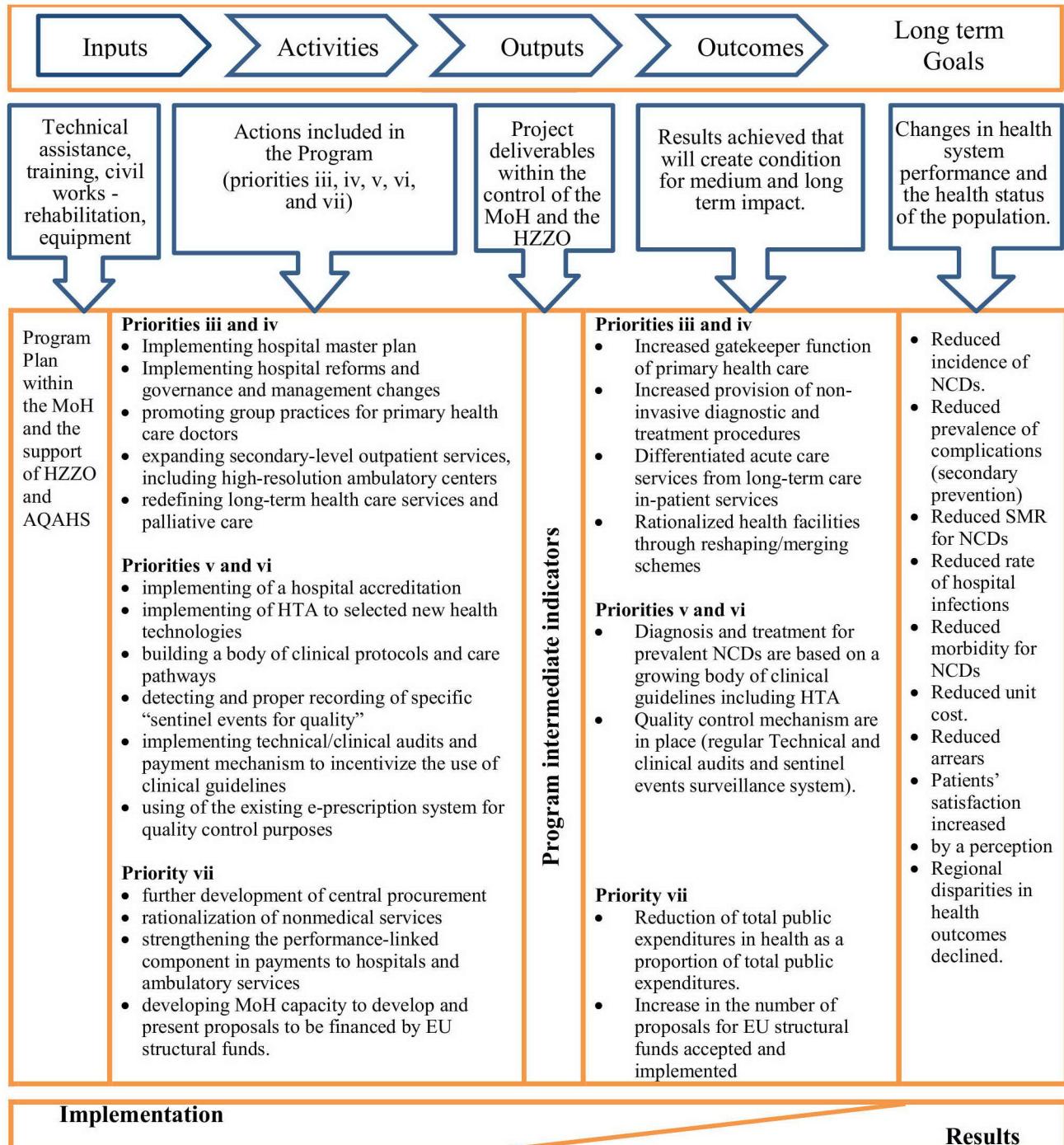
Program 2014-2017	i. Developing a Health Information System and eHealth
	ii. Strengthening and better using human resources in health care
	iii. Strengthening management capacity in health care
	iv. Reorganizing the structure and activities of health care institutions
	v. Fostering quality in health care
	vi. Strengthening preventive activities
	vii. Preserving financial stability of health care
	viii. Improving cooperation with other sectors and society in general

2. The five priorities within the Government's health care strategy that the Program for Results supports are:
 - iii. **Strengthening management capacity in health care.** The specific areas of focus include education and differentiation of management, data analysis, planning and researching the health care system, and strengthening the management authority of community health centers;
 - iv. **Reorganizing the structure and activities of health care institutions.** Improving integration and cooperation in primary health care and public health, developing and implementing a hospital master plan to rationalize and modernize hospital services, increasing the continuity of care between hospital and out-of-hospital services, structural modifications to hospitals, and increasing centralized (joint) procurement for hospitals;
 - v. **Fostering quality** in health care through (a) improving quality of monitoring, health worker education, and better public information for users; (b) developing, implementing, and monitoring clinical guidelines and accreditation; (c) introducing performance-based contracting and performance-based payments, with a specific emphasis on pay-for-quality initiatives; and (d) developing and implementing a formal Health Technology Assessment (HTA), including strengthening capacity to implement.
 - vi. **Strengthening preventive activities** by increasing the budgetary share of preventive activities in the health budget, improving management of preventive activities and programs including the introduction of performance-based contracting for prevention and strengthening preventive care at the primary care level; strengthening systems to monitor harmful environmental factors and early warning/response systems;
 - vii. **Preserving financial stability of health care** by focusing on strengthening the voluntary health insurance market, improving financial discipline in the health care system through

greater accountability, improving the strategic allocation of health resources, and reducing corruption and informal payments.

3. These 5 priorities are the backbone for a comprehensive health sector reform as presented in figure 2.

Figure 2: Program results chain



4. **Priorities iii and iv: Strengthening management capacity and Reorganizing the structure and activities of health care institutions** (linked to PDO 1). Strategic activities in this area include: (a) developing a detailed regional hospital master plan, including legal and governance capacity aspects; (b) taking control by the central government of hospitals for a period of three years or more in order to implement hospital reforms and introduce governance and management changes (hospital rationalization plan) and to reshape the existing organization of services; (c) promoting group practices for primary health care doctors; (d) expanding secondary-level outpatient services, including high-resolution outpatient diagnostic and treatment schemes for high-volume, low-cost specialized services; and (e) redefining long-term health care (LTHC) services and palliative care.
5. Rightsizing/rationalizing health services capacity means ensuring accessible secondary and tertiary care, and defining regional networks including a system of referrals and counter-referrals. Each regional network needs a differentiated “true tertiary care” hospital performing as a head of the network, and to formulate one or more hospital restructuring models that incorporate the best international experience for optimizing key dimensions of performance. Also, high-resolution outpatient diagnostic and treatment schemes for high-volume, low-cost specialized services need to be developed in response to demographic, technological, and economic challenges. The creation of functional networks and/or the integration of hospitals and specialized centers will yield economies of scale and increase outreach. This will allow for innovation in the structures, functionalities, and the architecture of the health facilities.
6. Group practices are important and a form of integrated primary health care through which greater efficiency, continuity, and quality of care can be achieved. As defined in the Government program, an “important and purposeful form of integration in primary health care is the establishment of group practices through which greater efficiency, continuity, and quality of work can be achieved by joint use of space, diagnostic and therapeutic equipment, nonmedical services (for example, accounting, cleaning), organization of stand-by duties and replacements, planning and implementing additional preventive and curative programs (for example, vaccination, home treatment), and possibilities of professional consultations and differentiation of clinical expertise among the partners in group practice. The costs of monitoring, implemented by the insurance company, are smaller for group practice than for individual offices.
7. Group practice must be a voluntary decision of health care workers, based on common professional and financial interests of all the partners. Teams within a group practice must define the rules and obligations related to the professional and financial position of each partner, especially concerning the distribution of financial assets. Home treatment is an integral component of group practice, with community nurses as key partners.
8. General practitioners in isolated geographic areas should be enabled to use telemedicine and create “virtual group practices” with the support of information and communication technologies. Provided that they have received appropriate professional training, these general practitioners should be allowed to perform additional diagnostic and therapeutic procedures (for example, physical therapy, diagnostic ultrasound, certain dermatological and surgical procedures, certain laboratory diagnostics, PAP smears). Furthermore, they should be able to arrange examinations by psychiatrists, neurologists, eye specialists, cardiologists, and other specialists for their patients in their general practices.
9. The expected results of these interventions include:
 - Increased gatekeeper function of primary health care by incentivizing the development of GP group practices.

- Increased provision of secondary specialized outpatient diagnostic and treatment services by intensifying the use of non-invasive diagnostic and treatment procedures, and expanding day care services and outpatient services.
- Differentiation of acute care services from long-term care in-patient services, reduction in the number of acute care beds due to increased service delivery at the outpatient care level, increase in long-term palliative and rehabilitation care, and social care to be transferred to specialized units/facilities.
- Rationalized health facilities through reshaping/merging schemes.

10. **Priorities v and vi: Fostering quality in health and Strengthening preventive activities** (linked to PDO 2). The interventions included in these priorities are critical steps for achieving better health outcomes and greater efficiency in the sector. The activities in this area include (a) implementation of a hospital accreditation mechanism¹⁷ as a condition of remaining in operation; (b) implementation of HTA to selected new health technologies, and linking results to decisions on public funding of new technologies; (c) building a body of clinical protocols and care pathways for more frequent health problems (based on best available medical evidence); (d) detecting and proper recording of specific “sentinel events for quality” within a fully implemented surveillance system; (e) implementation of technical audits and payment mechanism to monitor and incentivize the use of clinical guidelines (introduce selective contracting to reduce unnecessary hospital admissions); and (f) using of the existing e-prescription system for quality control purposes after extending the system to the hospitals and inpatients and to outpatient specialist services.

11. Two key ingredients in improving quality of care are the formal introduction of Health Technology Assessment (HTA) and the development of clinical pathways or guidelines. HTA is a vital input to defining the drugs and other technologies to be incorporated in the benefits package covered by the HZZO, which can increase the efficiency of resource use, and also help to contain cost escalation. Clinical guidelines, which are algorithms that provide practitioners with guidance regarding diagnosis, management, and treatment in specific areas of health care, need to be adapted to each country to fit the context of its own health system, referral networks, and resources. These clinical guidelines create what is known as care pathways, which provide detailed guidance for managing patients suffering from specific conditions over a given time period, including details of their progress and outcomes. In this way, care pathways aim to improve the quality, equity, continuity, and coordination of care across the health system. These clinical guidelines will also state the standards needed to implement quality control mechanisms (technical audits, and quality- and safety-related sentinel surveillance systems to identify readmissions, and preventable specific medical events), but also perform a gatekeeping function for access to the different levels of health services within the referral networks and constitute a tool to train and retrain human resources.

12. The expected results¹⁸ of these interventions include:

- A growing body of clinical guidelines is adopted and constitutes the basis for building the basic package of services.
- HTA of selected new health technologies implemented.

¹⁷ Hospital accreditation is an assessment process, usually implemented by an independent agency, used to measure the level of performance of health organizations in relation to established standards and a tool to implement quality improvements.

¹⁸ Expected results in these priorities are more focused on having quality control mechanisms in place than measuring general improvement of health outcomes that will be visible and measurable in the long term.

- Technical and clinical audits implemented with a high proportion of hospitals and health facilities successfully approving these audits.
- A sentinel events surveillance system implemented to report readmissions, adverse effects, and incidence of preventable specific medical events (including non-traumatic lower-limb amputations, postoperative pulmonary embolism, and deep vein thrombosis).
- Nosocomial Infections Surveillance system in place in all tertiary hospitals and secondary hospitals, and results made public on the MoH website.
- Doctors receiving feedback reports about their prescription patterns and recommendations, and reduced proportion of incorrectly filled prescriptions.
- Patients' satisfaction increased by a perception of increased responsiveness.
- The health status of the population improved.
- Regional disparities in health outcomes declined.

13. **Priority vii: Preserving financial stability.** Croatia is facing a mismatch between available public resources and growing expenditures in the Croatian health system. Croatia's improvements in health status come at a substantial cost and put considerable strain on public finances. With overall health spending at 7.8 percent of GDP, Croatia spends significantly more than countries in the region with similar gross national income per capita, but does not appear as a significant outlier when compared with countries in that income range worldwide.¹⁹ The generosity of health benefits, a low proportion of private financial contributors, and the legacy of a publicly financed system with no significant pressure to make the system more efficient are putting a significant burden on public expenditures. The sector is consuming a very large proportion of available public resources (17.7 percent of the Government's total budget), higher than the average for EU countries (15.6 percent in 2009). Past reforms, supported by a series of DPLs, have mostly concentrated on mobilizing additional financial resources and shifting health expenditures from public to private sources. However, public health expenditures remain at around 85 percent of total health expenditures (10 percentage points higher than the EU average of 76 to 77 percent),²⁰ and the reforms so far have not focused adequately on the need to increase efficiency and control ever increasing public health expenditures.

14. The activities in this area include: (a) developing of centralized procurement of medical and nonmedical supplies, including framework contracts and, potentially, e-procurement; (b) rationalization of nonmedical services; (c) reviewing comparative costs of different modalities of care (outpatient compared to inpatient procedures), in search of cost-effective savings in order to adjust amounts to be paid for each; (d) strengthening the performance-linked component in payments to hospitals and primary care to create incentives to reduce referrals and improve quality of care; and (e) strengthening the MoH capacity to develop and present proposals to be financed by EU structural funds.

15. The expected results of these interventions include:

- Primary Health Care units are being paid based on their performance.

¹⁹ In terms of per capita spending estimated in purchasing power parity (PPP), Croatia spent US\$1,514 in 2010, which was more than Estonia, Lithuania, Poland, and Serbia but less than the Czech Republic, (US\$2,051 PPP) and Slovenia (US\$2,552 PPP).

²⁰ European Health for All database (HFA-DB), WHO/Europe.

- Potential savings realized from a new payment system designed to promote hospital day care (for processes amenable to outpatient treatment and previously delivered under inpatient conditions).
- Drug risk-sharing schemes implemented, especially for expensive drugs.
- Reduced costs of specific rationalized nonmedical services.
- Reduced costs realized due to the centralized procurement of and framework contracts for medical and nonmedical supplies.
- Increase in the number of proposals for EU structural funds accepted by the EU after being correctly submitted according to the established procedure.
- Reduction of total public expenditures on health as a proportion of total public expenditures.

Program Expenditure Framework analysis.

16. Estimated costs appear adequate to achieve key Program objectives; nevertheless some of the key investments would require the absorption of EU funds. While, as mentioned before, the estimated total cost to implement the 8-year Government program is about EUR 409 M or EUR 51 M per year (or 1.6 percent of overall public health sector spending), some critical interventions (civil works and medical equipment) may seek EU funds in order to be implemented. Partially relying on EU funds creates a financing risk for the Government program (and the proposed Program), the Program itself constitutes an opportunity to help Government fulfilling the ex-ante conditionalities to absorb EU funds.

17. The initial steps of the Government program have created the needed momentum. The proposed Program will help finance implementation of the first phase of 5 out of 8 priorities of the Government program (2012–2020). It will also help the GoC to access resources from the EU funds while supporting the efficient use of these resources. In the absence of an EU operational program earmarked for the health sector, the Program will help promote a shift towards the health sector of EU funds, such as the Regional Development Program. The Program will create conditions to support the MoH in applying (stand alone or jointly with other entities) for EU funds and in properly implementing investments that may be financed out of the EU funds if proposals are awarded.

Table 5. Program Financing

Source of Financing	Amount	
	EUR Million	US\$ Million Equivalent
GoC*	105.0	144.8
IBRD	75.0	103.5
Total Program Financing	180.0	248.3

* GoC may seek EU funds to partially finance its program

Table 6. Estimated Profile of Program Expenditures

	EUR Million	US\$ Million Equivalent
Civil Works	95.0	131.0
Medical Equipment and Goods	25.0	34.5
Technical Assistance	4.0	5.5
Human Resources	8.0	11.0
Services and Operational Cost	48.0	66.3
Total	180.0	248.3

18. In addition, the MoF and the MoH have agreed on including in the MoH budget additional resources to finance critical Program activities, in particular those oriented to increase quality control, management and cost efficiency. In parallel, greater efficiency in the health sector supported by the Program will reduce recurrent hospital arrears and allow the reallocation of resources currently being used to cover these arrears to finance Program activities.

19. While the HZZO and AQAHS will play important roles in adjusting their current activities to support the reform, the Government program (and the Program) will be implemented directly by the MoH or through the hospitals under the MoH responsibility. It is estimated that 50 percent of the Program expenditures will support civil works, while another 25 percent would be spent in services and operational costs (Table 6). The type of activities financed under the Program includes:

- *Reorganizing the health facility network structure activities.* Feasibility and design studies, civil works (mostly for hospital rehabilitations), medical and non-medical equipment for the rightsizing of the health facility networks. Some hospitals will require rehabilitation, others will be merged, and others will be converted in secondary outpatient services or in LTC units.
- *Fostering quality and implementing HTA activities.* Equipment (mainly laboratory equipment), training and operational costs for implementing HTA. Technical assistance for the development of new clinical protocols, training the health workers in new protocols, design of new technical and clinical audit procedures, technical audits (HZZO) and accreditation services (AQAHS). Implementation of new surveillance system for sentinel events.
- *Increasing prevention and primary health activities.* Medical equipment, training, technical assistance, and adjustment in the payment system (incentives).
- *Preserving financial stability activities.* Operational cost to further implement centralized procurement of medical and nonmedical supplies, technical assistance and communication campaigns to support policy reforms, and introduction of performance based incentives.

20. The procurement under the Program will be carried out in accordance with the Croatian PPA. The procurement processes and procedures should provide reasonable assurance that the financing proceeds will be used for the purposes intended, with due attention to the principles of economy, efficiency, effectiveness, transparency and accountability. It is not expected that any of the contracts for civil works, goods and services/Technical Assistance (TA) would exceed the Bank's current Operations Procurement Review Committee (OPRC) review thresholds. The Bank will not be involved in the activities with regard to the development of the health information system and e-Health priority.

21. The cost benefit analysis presented in annex 4 (table 15) shows that the sum of costs and benefits (i.e. the Net Present Value [NPV] of the interventions) is largely positive and the estimated Internal Rate of Return (IRR) ranges between 4.85 and 9.83 percent considering only the first Program phase 2012-2017, and between 17.38 and 24.52 percent for the full Program duration 2012-2020, depending on the inflation used, which clearly shows the positive development impact of the proposed Program.

22. Based on this analysis, sustainability seems not to be an issue in the short term; nevertheless, in the long term the success of the Government program will result in better health outcomes (greater life expectancy) and a growing demand for health services from an aging population.

Annex 2: Results Framework Matrix

Results Framework and Monitoring

Program Development Objective: to improve the quality of health care and efficiency of health services in Croatia.										
PDO Level Results Indicators	DLI	Baseline (2012)	Target Values					Frequency	Data Source/ Methodology	Responsibility for Data Collection
			Year 1	Year 2	Year 3	Year 4	Year 5			
PDO Indicator 1: First phase of the hospital master plan achieved all of the following milestones:										
Total number of hospital beds in Rationalized Hospitals ^a classified as acute care beds	X	15,930		15,000			12,800	Yearly	HZZO/Hospital contracts	HZZO and MoH
Percentage of rationalized hospitals without arrears incurred during the preceding calendar year	X	0%			40%		80%	Yearly	Hospital financial plans and financial reports	MoH and MoF
PDO Indicator 2: Quality control procedures in place including:										
Percentage of best-performing rationalized hospitals which are publicly disclosed (including results) based on the technical audit in the preceding 12 months	X	0%				20%	40%	Yearly	Technical audit documentation/reports	HZZO and AQAHS
Percentage of Rationalized Hospitals accredited by AQAHS through the Acceptable Accreditation Process	X	0%				20%	50 %	Yearly	Accreditation certificates	AQAHS

Note: a. As defined in the Hospital Master Plan

Intermediate indicators	DLI	Unit of Measure	Baseline (2012)	<i>Indicative Timeline for Achievement, Targets are cumulative</i>					Responsibility for Data Collection – Data Source
				Year 1	Year 2	Year 3	Year 4	Year 5	
1. Ratio between primary health care/secondary outpatient care/ and hospital inpatient care services.		Ratio	58 / 18 / 1	58 / 18 / 1	78 / 21 / 1	79 / 20 / 1	84 / 19 / 1	90 / 19 / 1	HZZO's information system
2. Number of “hospital reshaping scheme” projects implemented.	X	Number	0	0	0	1	1	2	(b)
3. Percentage of all surgeries included in the elective surgeries list performed as outpatient surgeries in the preceding six months.	X	Percentage	0	5	30	30	60	60	(b)
4. Number of clinical guidelines with specific protocols for most prevalent NCDs (including care pathways).		Number	0	-	10	10	20	20	MoH - Clinical protocols published
5. Number of Primary Health Care doctors re-trained in updated clinical protocols.		Number	0		2300	3000	3500	4000	MoH - Training reports
6. Percentage of primary health care doctors working in group practices.	X	Percentage	0		30	50	50	50	(b)
7. Percentage of Primary Health Care group practices achieving performance indicators and accessing to payment incentives.		Percentage	0	-	30	50	60	60	HZZO – Payment information system
8. Percentage of identified doctors ^a with whom corrective course of action has been discussed on a person-to-person basis in the preceding six months.	X	Percentage	20	75	90	90	90	90	(b)
9. Percentage of total public spending per fiscal year on medical consumables, drugs, and devices for hospital (inpatient and outpatient) services made through centralized procurement/ framework contracts and disclosed on the MoH website.	X	Percentage	0	30	30	60	60	60	(b)
10. Number of counties implementing specialized services on palliative care.		Number	1	-	8	12	15	15	MoH – Reports
11. Number of proposals for EU structural funds accepted by the relevant authority after being correctly submitted.		Number	0	0	0	4	6	8	MoH – Letter/s from relevant authority
12. Percentage of Nosocomial Infections Surveillance system in place in tertiary hospitals and secondary hospitals.		Percentage	0	0	10	10	20	30	MoH – Surveillance system reports
13. Percentage of hospitals with surgery wards that have established quality-and safety-related sentinel surveillance schemes that are reporting the rates of specific events.	X	Percentage	0%	30	30	60	60	60	(b)
14. Percentage of patients' satisfaction by a perception of increased responsiveness.		Percentage	38	38	55	55	70	75	HZZO – Annual survey

Note: a. Doctors for whom HZZO-defined prescription patterns in the preceding six months were found to be “unsatisfactory”.

b See annex 3 for Data Source /Agency for indicators 2, 3, 6, 8, 9 and 13.

Annex 3: Disbursement-Linked Indicators, Disbursement Arrangements, and Verification Protocols

Disbursement-Linked Indicator Matrix

	<i>Total Financing Allocated to DLI</i>	<i>As % of Total Financing Amount</i>	<i>DLI Baseline</i>	<i>Indicative Timeline for DLI Achievement</i>				
				<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Year 4</i>	<i>Year 5</i>
DLI 1. Total number of hospital beds in Rationalized Hospitals classified as Acute Care Beds.	EUR 7.5 million	10%	15,930 (2012)		15,000			12,800
Definition/Description of Achievement: Total number of acute care beds to be reduced from the baseline of 15,930 (paid by the HZZO) to 15,000 and further to 12,800 by converting some of them into “social beds,” “long-term” or “palliative care” beds,” “day care posts,” or closing them down. Scalable disbursement proportional to the progress toward achievement of this DLI will be applied to the second 50% portion of the DLI financing based on a formula specified in the Bank Disbursement Table.								
DLI 2. Number of “Hospital Reshaping Scheme” ^a projects implemented.	EUR 7.5 million	10%	0 (2012)			1		2
Definition/Description of Achievement: Following finalization of the Master Plan, the Ministry of Health to identify two or more potential hospital reshaping schemes in agreement with the Bank and implement at least two of the agreed projects to their full functionality (as defined in the MoH proposal).								
DLI 3. Percentage of rationalized hospitals without arrears incurred during the preceding calendar year.	EUR 7.5 million	10%	0% (2012)				40%	80%
Definition/Description of Achievement: 40% and 80% of hospitals to achieve stable functioning and remain without new arrears incurred during the preceding calendar year.								
DLI 4. Percentage of all surgeries included in the elective surgeries list performed as outpatient surgeries ^b in the preceding six months.	EUR 7.5 million	10%	0 to 5.8% ^b (2012)		30%		60%	
Definition/Description of Achievement: 30% and 60% of all surgeries included in the predefined list of elective surgeries to be performed as surgeries on an outpatient basis in the preceding six months. Scalable disbursement proportional to the progress toward achievement of this DLI will be applied to the second 50% portion of the DLI financing based on a formula specified in the Bank Disbursement Table.								
DLI 5. Percentage of best-performing rationalized hospitals which are publicly disclosed (including results) based on the technical audit in the preceding 12 months.	EUR 7.5 million	10%	0% (2012)			20%	40%	
Definition/Description of Achievement: Best performing 20% and 40% of all rationalized hospitals to be publicly disclosed based on result of technical audit (including explicit key performance indicators (KPI) and quality indicators (QI)) in the preceding 12 months,. Scalable disbursement proportional to the progress toward achievement of this DLI will be applied to the second 50% portion of the DLI financing based on a formula specified in the Bank Disbursement Table.								

DLI 6. Percentage of Rationalized Hospitals accredited by AQAHS through the Acceptable Accreditation Process.	EUR 7.5 million	10%	0% (2012)			20%		50%
Definition/Description of Achievement: 20% and 50% of rationalized hospitals to receive accreditation certificates from AQAHS in an acceptable accreditation process. Scalable disbursement proportional to the progress toward achievement of this DLI will be applied to the second 50% portion of the DLI financing based on a formula specified in the Bank Disbursement Table.								
DLI 7. Percentage of identified doctors ^c with whom corrective course of action has been discussed on a person-to-person basis in the preceding six months.	EUR 7.5 million	10%	20% (2012)	75%	90%			
Definition/Description of Achievement: 75% and 90% of doctors for whom the total monetary value of drugs prescribed in the preceding six months is above a predefined average spending limit that accounts for number, gender, and age of their patient population to receive a visit of an HZZO inspector, discuss possible reasons for such overspending on a person-to-person basis and, in cases where overspending is found to be unjustifiable, receive a warning and be mandated to attend an educational session on rational drug prescribing, organized by HZZO.								
DLI 8. Percentage of total public spending per fiscal year on medical consumables, drugs, and devices for hospital (inpatient and outpatient) services made through centralized procurement/framework contracts and disclosed on the MoH website.	EUR 7.5 million	10%	0% (2012)	30%		60%		
Definition/Description of Achievement: 30% and 60% of total public spending on medical consumables, drugs, and devices for hospital (inpatient and outpatient) services in the preceding fiscal year to be made through centralized procurement/framework contracts and disclosed on the Ministry of Health website in simplified and understandable format. Scalable disbursement proportional to the progress toward achievement of this DLI will be applied to the second 50% portion of the DLI financing based on a formula specified in the Bank Disbursement Table.								
DLI 9. Percentage of primary health care doctors in the Republic of Croatia working in group practices.	EUR 7.5 million	10%	0% (2012)		30%	50%		
Definition/Description of Achievement: 30% and 50% of all primary health care doctors in the Republic of Croatia to render their services through group practices.								
DLI 10. Percentage of hospitals with surgery wards that have established quality- and safety-related sentinel surveillance schemes that are reporting the rates of specific events ^d .	EUR 7.5 million	10%	0% (2012)	30%		60%		
Definition/Description of Achievement: 30% and 60% of hospitals with surgery wards that have established quality- and safety-related sentinel surveillance schemes to record/report the rates of the three listed specific events.								
Total Financing Allocated:	EUR 75 million	100%		Euro 11.25 million	Euro 15.00 million	Euro 22.50 million	Euro 11.25 million	Euro 15.00 million

Note:

- a. Hospital reshaping scheme means design and operationalize projects with substantial adjustment in the way (hospital) services are organized, managed, and funded. Moving forward with the necessary actions in the legal, financial, and managerial spheres to initiate, test, and explore deep changes. For example, a “3 X (1+1)” scheme would involve three institutions operating as hospitals today that become one substantially more modern hospital plus one full-fledged “outpatient and day care center” and a third one that would provide much less complex services.
- b. Elective surgeries: Abdominal hernia surgery (5.8% performed as outpatient surgeries in 2012), cataract surgery (4.3% in 2012), local excision and removal of internal fixation, except on hip and femur (3.5% in 2012), palmar fasciectomy for dupuytren's contracture (2.1% in 2012), tonsilectomy (0% in 2012).
- c. Doctors for whom HZZO-defined prescription patterns in the preceding six months were found to be “unsatisfactory”.
- d. Including: (a) non-traumatic, diabetes-related lower-limb amputations; (b) surgery on the wrong patient or wrong body part; and (c) postoperative pulmonary embolism, and deep vein thrombosis (information will be disaggregated by gender).

DLI Verification Protocol Table

#	DLI	Scalability of Disbursements (Yes/No)	Protocol to Evaluate Achievement of the DLI and Data/Result Verification		
			Data Source/Agency	Verification Entity	Procedure
1	Total number of hospital beds in Rationalized Hospitals classified as Acute Care Beds.	Yes	Copies of all contracts signed annually between the HZZO and hospitals (to be provided by the HZZO).	HZZO	The total number of “acute care beds” contracted by the HZZO each year to be verified based on the HZZO-signed contracts.
2	Number of “Hospital Reshaping Scheme” projects implemented.	No	MoH proposals for potential hospital reshaping scheme projects; reports from World Bank field visits to health institutions where hospital reshaping schemes were implemented.	MoH	Following the completion of design of the Master Plan, the MoH to identify two or more potential hospital reshaping schemes and submit details of the proposal to the Bank for approval. The respective portions of disbursements will be triggered once full implementation and full functionality (as defined in the MoH proposals) of two agreed projects are verified.
3	Percentage of rationalized hospitals without arrears incurred during the preceding calendar year.	No	Copies of all rationalized hospitals’ completed financial plans and financial reports for the preceding calendar year.	MoH/ MoF	To be verified based on the share of hospitals whose financial reports show absence of new arrears in the preceding calendar year (numerator) in the total number of rationalized hospitals (denominator).
4	Percentage of all surgeries included in the elective surgeries list performed as outpatient surgeries* in the preceding six months.	Yes	Semiannual reports from the HZZO billing information system covering all surgeries included in the predefined list of elective surgeries.	HZZO	To be verified based on the share of surgeries included in the predefined list of elective surgeries that were performed and paid for as surgeries on an outpatient basis (numerator) in the total number of all surgeries included in the predefined list of elective surgeries (denominator).
5	Percentage of best-performing rationalized hospitals which are publicly disclosed (including results) based on the technical audit in the preceding 12 months..	Yes	Lists of all rationalized hospitals and those that were subject to technical audit in the preceding calendar year; technical audit documentation for all the hospitals audited in the preceding calendar year; and lists of best performing hospitals whose results were disclosed on the MoH website and other publicly accessible media.	AQAHS HZZO	Achievement of the first target value to be verified based on the fact of 20% best performing of all rationalized hospitals to be publicly disclosed (based on technical audits). Achievement of the second target value to be verified based on the fact of 40% best performing of all rationalized hospitals to be publicly disclosed (based on technical audits).
6	Percentage of Rationalized Hospitals accredited by AQAHS through the Acceptable Accreditation Process.	Yes	List of rationalized hospitals, copies of accreditation certificates issued by the AQAHS.	AQAHS	To be verified based on the share of rationalized hospitals that received accreditation certificates issued by the AQAHS (numerator) in the total number of rationalized hospitals (denominator).

#	<i>DLI</i>	<i>Scalability of Disbursements (Yes/No)</i>	<i>Protocol to Evaluate Achievement of the DLI and Data/Result Verification</i>		
			<i>Data Source/Agency</i>	<i>Verification Entity</i>	<i>Procedure</i>
7	Percentage of identified doctors ^b with whom corrective course of action has been discussed on a person-to-person basis in the preceding six months	No	Lists of doctors for whom HZZO-defined prescription patterns were evaluated in the preceding six months; lists of and evaluation reports for doctors whose prescription patterns in the preceding six months were found to be “unsatisfactory”; and face-to-face meeting minutes signed by HZZO inspector and respective doctor, which include corrective action plans for doctors whose prescription patterns in the preceding six months were found to be “unsatisfactory.”	HZZO	To be verified based on the share of duly signed face-to-face meeting minutes (numerator) to the total number of doctors whose prescription patterns in the preceding six months were found to be “unsatisfactory” based on respective evaluation reports by the HZZO.
8	Percentage of total public spending per fiscal year on medical consumables, drugs, and devices for hospital (inpatient and outpatient) services made through centralized procurement/ framework contracts and disclosed on the MoH website.	Yes	Total amount of actual annual public spending by the MoH on medical consumables, drugs, and devices for hospital (inpatient and outpatient) services; aggregated annual amount of contracts signed by the MoH for medical consumables, drugs, and devices for hospital (inpatient and outpatient) services procured through centralized procurement/ framework contracts and disclosed on the MoH website in simplified and understandable format.	MoH MoF	To be verified based on the share of total value of annual contracts for medical consumables, drugs, and devices for hospital (inpatient and outpatient) services signed by the MoH as centralized procurement/ framework contracts and disclosed on the MoH website in simplified and understandable format (numerator) to the total amount of actual annual public spending by the MoH on medical consumables, drugs, and devices for hospital (inpatient and outpatient) services.
9	Percentage of primary health care doctors in the Republic of Croatia working in group practices.	No	Lists of all primary health care doctors in the Republic of Croatia working in the health sector (either individually or as group practice); lists of general practitioners working in duly established general practices (both lists to be provided by MoH).	HZZO	To be verified based on the share of primary health care doctors working in group practices (numerator) to the total number of general practitioners for primary care (denominator).
10	Percentage of hospitals with surgery wards that have established quality- and safety-related sentinel surveillance schemes that are reporting the rates of specific events. ^c	No	Lists of hospitals having surgery wards; lists of hospitals with surgery wards that have established quality- and safety-related sentinel surveillance schemes that are reporting the rates of all the three listed specific events (both lists to be provided by the MoH/AQAHS).	AQAHS HZZO	To be verified based on the share of hospitals with surgery wards that have established quality- and safety-related sentinel surveillance schemes that are reporting the rates of all the three listed specific events (numerator) to the total number of hospitals having surgery wards (denominator).

a. Elective surgeries: Abdominal hernia surgery, cataract surgery, local excision and removal of internal fixation, except on hip and femur, palmar fasciectomy for dupuytren's contracture, tonsillectomy (information will be disaggregated by gender).

b. Doctors for whom HZZO-defined prescription patterns in the preceding six months were found to be “unsatisfactory”.

c. Including: (a) non-traumatic, diabetes-related lower-limb amputations; (b) surgery on the wrong patient or wrong body part; and (c) postoperative pulmonary embolism, and deep vein thrombosis (information will be disaggregated by gender).

Bank Disbursement Table

#	<i>Disbursement-Linked Indicator (DLI)</i>	<i>Bank Financing Allocated to the DLI</i>	<i>Of which Financing Available for Prior Results</i>	<i>Deadline for DLI Achievement</i>	<i>Minimum DLI Value to be Achieved to Trigger Disbursements of Bank Financing</i>	<i>Maximum DLI Value(s) Expected to be Achieved for Bank Disbursements Purposes</i>	<i>Determination of Financing Amount to be Disbursed against Achieved and Verified DLI Value(s)</i>
1	Total number of hospital beds in Rationalized Hospitals classified as Acute Care Beds	EUR 7.5 million	N/A	Mar-30-2019	15,000	12,800	First 50% portion to be disbursed once reduction of the total number of hospital beds contracted by the HZZO classified as “acute care beds” to 15,000 is verified; Second 50% portion to be disbursed proportionate to the verified progress toward achievement of the target value of 12,800 beds based on the following formula: Euro 3,750,000 / (15,000–12,800) X actual number of “acute care beds” reduced.
2	Number of “Hospital Reshaping Scheme” projects implemented.	EUR 7.5 million	N/A	Mar-30-2019	1	2	First 50% portion to be disbursed once implementation and full functionality (as defined in the MoH proposal) of one “hospital reshaping scheme” project verified; Second 50% portion to be disbursed once implementation and full functionality (as defined in the MoH proposal) of second “hospital reshaping scheme” project verified.
3	Percentage of rationalized hospitals without arrears incurred during the preceding calendar year.	EUR 7.5 million	N/A	Mar-30-2019	40%	80%	First 50% portion to be disbursed once rationalized hospitals without new arrears reach 40% of hospitals; Second 50% portion to be disbursed proportionate to the verified progress toward achievement of the target value of 80% based on the following formula: Euro 3,750,000 / (40) X additional percentage points achieved after first portion.
4	Percentage of all surgeries included in the elective surgeries list ^a performed as outpatient surgeries in the preceding six months.	EUR 7.5 million	N/A	Mar-30-2019	30%	60%	First 50% portion to be disbursed once 30% of all surgeries included in the predefined list of elective surgeries performed as surgeries on an outpatient basis in the preceding six months is verified; Second 50% portion to be disbursed proportionate to the verified progress toward achievement of the target value of 60% based on the following formula: Euro 3,750,000 / (30) X additional percentage points achieved after first portion.

#	Disbursement-Linked Indicator (DLI)	Bank Financing Allocated to the DLI	Of which Financing Available for Prior Results	Deadline for DLI Achievement	Minimum DLI Value to be Achieved to Trigger Disbursements of Bank Financing	Maximum DLI Value(s) Expected to be Achieved for Bank Disbursements Purposes	Determination of Financing Amount to be Disbursed against Achieved and Verified DLI Value(s)
5	Percentage of best-performing rationalized hospitals which are publicly disclosed (including results) based on the technical audit in the preceding 12 months.	EUR 7.5 million	N/A	Mar-30-2019	20%	40%	First 50% portion to be disbursed once the fact of technical audit of all of rationalized hospitals in the preceding 12 months based on explicit KPIs and QIs as defined by the HZZO and AQAHS with public disclosure of results for the best 20% performing hospitals, is verified; Second 50% portion to be disbursed proportionate to the verified progress toward achievement of the target value of 40% based on the following formula: Euro 3,750,000 / (20) X additional percentage points achieved after first portion.
6	Percentage of Rationalized Hospitals accredited by AQAHS through the Acceptable Accreditation Process.	EUR 7.5 million	N/A	Mar-30-2019	20%	50%	First 50% portion to be disbursed once accreditation of 20% of rationalized hospitals is verified; Second 50% portion to be disbursed proportionate to the verified progress toward achievement of the target value of 50% based on the following formula: Euro 3,750,000 / (30) X additional percentage points achieved after first portion.
7	Percentage of identified doctors ^b with whom corrective course of action has been discussed on a person-to-person basis in the preceding six months.	EUR 7.5 million	N/A	Mar-30-2019	75%	90%	First 50% portion to be disbursed once the fact of discussion of corrective course of action with 75% of non-performing doctors is verified; Second 50% portion to be disbursed proportionate to the verified progress toward achievement of the target value of 90% based on the following formula: Euro 3,750,000 / (15) X additional percentage points achieved after first portion.
8	Percentage of total public spending per fiscal year on medical consumables, drugs, and devices for hospital (inpatient and outpatient) services made through centralized procurement/ framework contracts and disclosed on the MoH website.	EUR 7.5 million	N/A	Mar-30-2019	30%	60%	First 50% portion to be disbursed once 30% of total public spending on medical consumables, drugs, and devices for hospital (inpatient and outpatient) services in the preceding fiscal year is made through centralized procurement/framework contracts and disclosed on the MoH website in simplified and understandable format; Second 50% portion to be disbursed proportionate to the verified progress toward achievement of the target value of 60% based on the following formula:

#	<i>Disbursement-Linked Indicator (DLI)</i>	<i>Bank Financing Allocated to the DLI</i>	<i>Of which Financing Available for Prior Results</i>	<i>Deadline for DLI Achievement</i>	<i>Minimum DLI Value to be Achieved to Trigger Disbursements of Bank Financing</i>	<i>Maximum DLI Value(s) Expected to be Achieved for Bank Disbursements Purposes</i>	<i>Determination of Financing Amount to be Disbursed against Achieved and Verified DLI Value(s)</i>
							Euro 3,750,000 / (30) X additional percentage points achieved after first portion.
9	Percentage of primary health care doctors in the Republic of Croatia working in group practices.	EUR 7.5 million	N/A	Mar-30-2019	30%	50%	First 50% portion to be disbursed once the fact of 30% of primary health care doctors' in the Republic of Croatia working in group practices is verified; Second 50% portion to be disbursed proportionate to the verified progress toward achievement of the target value of 50% based on the following formula: Euro 3,750,000 / (20) X additional percentage points achieved after first portion.
10	Percentage of hospitals with surgery wards that have established quality- and safety-related sentinel surveillance schemes that are reporting the rates of specific events. ^c	EUR 7.5 million	N/A	Mar-30-2019	30%	60%	First 50% portion to be disbursed once reporting the rates of the three listed specific events by 30% of hospitals with surgery wards that have established quality- and safety-related sentinel surveillance schemes is verified; Second 50% portion to be disbursed proportionate to the verified progress toward achievement of the target value of 60% based on the following formula: Euro 3,750,000 / (30) X additional percentage points achieved after first portion.

a. Elective surgeries: Abdominal hernia surgery, cataract surgery, local excision and removal of internal fixation, except on hip and femur, palmar fasciectomy for dupuytren's contracture, tonsillectomy (information will be disaggregated by gender).

b. Doctors for whom HZZO-defined prescription patterns in the preceding six months were found to be "unsatisfactory".

c. Including: (a) non-traumatic, diabetes-related lower-limb amputations; (b) surgery on the wrong patient and surgery of the wrong body part; and (c) postoperative pulmonary embolism, and deep vein thrombosis (information will be disaggregated by gender).

Annex 4: Summary Technical Assessment

1. This technical assessment has been carried out as part of the preparation of the Health Program-for-Results (PforR) operation in Croatia. The primary focus of the assessment is on the Government's program, the 2012-2020 National Health Care Strategy, which serves as the policy framework for this operation.

A. Strategic relevance and technical soundness of the proposed Program

2. The objective of the proposed Program—that is, improving health sector quality and efficiency—is critical to the development and EU integration agenda in Croatia. Although the Croatian health system produces fairly good outcomes, this has been achieved at costs that are difficult to sustain in a fiscally constrained environment. The Croatian economy has been in recession for the last few years and the prognosis remains one of limited growth. Overall health spending is high at approximately 7.8 percent of GDP, and Croatia spends significantly more than countries with similar GDP per capita in the region, while the health sector's share of public expenditures is higher than the average for all EU countries. At the same time, an aging population, shifts in the disease burden toward a dominance of chronic and non-communicable conditions, and the inevitable upward pressure on health care costs from technological advances imply that health expenditures will continue to increase in the future.

3. The Government program 2012–2020, which sets out the policy and operational framework for the health sector in Croatia, echoes this diagnosis and identifies improving health sector quality, understood as the appropriateness and effectiveness of health services, and increasing efficiency of service delivery, as priority concerns. As the steward of the health sector, the Ministry of Health is uniquely positioned to design and implement the big-picture reforms needed to improve quality and efficiency and thereby improve the financial sustainability of the health sector.

4. The proposed Program has many of the critical building blocks required for delivering results. These include:

- Strong political commitment to achieving reform, which is bolstered by the PforR instrument.
- The Program is harmonized with the larger policy framework for health sector reform in Croatia, since it contributes to the main challenges identified in the Government program 2012–2020.
- The Program is technically sound and oriented to addressing the reform priorities facing the Croatian health sector, that is, rationalizing the health facility network, improving quality of health care services, and promoting financial sustainability of the health sector.
- Clearly defined interventions, which are technically appropriate to improving efficiency and quality in the Croatian context, and are supported by emerging international experience in the area.
- An agreed set of SMART (Specific, Measurable, Attainable, Relevant, and Time-bound) results indicators to assess Program performance.

5. Political commitment to the proposed reforms is high, and the Government has already initiated important reforms that seek to improve efficiency and quality, including those that will contribute to the proposed Disbursement-Linked Indicators (DLIs). As a result of reforms, the Croatian health system now has better regional balance in terms of funding and human resources, complementary and, to a limited extent, private insurance has been introduced, a new performance-based payment mechanism has been implemented in hospitals, and new regulations have rationalized pharmaceutical expenditures. The recent reforms in pharmaceuticals are, in fact, identified as regional best practice in a multi-country study

conducted by the World Bank.²¹ More recently, the MoH recentralized management of hospitals to implement hospital management reforms that will facilitate future implementation of hospital rationalization.

6. The PforR instrument will further strengthen the internal momentum to achieve results by aligning incentives to support results within the government's own program and by aligning the incentives of the Ministries of Health and Finance to achieve defined program results. By strengthening country systems, the PforR would also enable Croatia to leverage funding from the EU, an important future source of health sector funding. Institutional arrangements between the MoF and the MoH would enable the MoH to receive in its budget EUR 7.5 million to finance Technical Assistance, which will be instrumental in implementing the Program and in leveraging future funding from the EU.

7. As the main document directing sectoral development over an eight-year period, the 2012-2020 National Health Care Strategy presents the basis for formulating health care policies and decisions, including those related to the distribution of budgetary funds in the health care sector. Given Croatia's recent accession to the EU, the Strategy is also oriented at planning the development of health care in the context of the social, legal, and economic framework of the EU. The Government's program is nested within the Strategy. The proposed Program is aligned with the Government program and 2012-2020 National Health Care Strategy, a factor that increases the likelihood that the reforms proposed will be sustained, thereby enabling it to achieve its objectives. The Strategy identifies eight main priorities, of which five will be supported under the proposed Program: (1) strengthening management capacity in health care, (2) reorganizing the structure and activities of health care institutions, (3) fostering quality in health care, (4) strengthening preventive activities, and (5) preserving financial stability of health care.

8. Reorienting service delivery in Croatia is critical to meet the changed landscape of needs effectively and efficiently. The needs that Croatia's health system must address have changed as a consequence of the demographic and epidemiological transition in the country. The disease burden in Croatia has shifted from being dominated by maternal and child health and communicable diseases to a majority of chronic and non-communicable conditions. Heart and blood vessel diseases, for example, are the leading cause of death and account for 49 percent of deaths from all causes. Cancer, the second-most-frequent cause, accounts for 26 percent. Combined, the two are responsible for three out of every four deaths.²² The underlying causes of disease have also drastically changed.²³ In 1990, the three leading risk factors were low body weight in children, indoor air pollution from cooking fuels, and smoking, whereas by 2010 they were high blood pressure, alcohol consumption, and smoking; and inactivity and poor diet, eating too little fruit and too much salt accounted for 10 percent of disability-adjusted life years (DALYs).

9. Meeting these needs effectively and efficiently requires a modern, integrated, patient-centered health system. Chronic conditions pose a thorny challenge to health systems because they depend critically on patient lifestyles and knowledge, require continuous monitoring and management rather than episodic attention, and their management is complex and requires multidisciplinary teams. Traditional hospitals and Primary Health Care facilities are increasingly viewed as outdated and unable to efficiently deliver

²¹ World Bank. 2013a. "Getting Better: Improving Health System Outcomes in Europe and Central Asia." World Bank, Washington, DC.

²² Institute for Health Metrics and Evaluation. 2013. "Global Burden of Disease Croatia, Country Profiles" (accessed May 30, 2013), <http://www.healthmetricsandevaluation.org/sites/default/files/country-profiles/GBD%20Country%20Report%20-%20Croatia.pdf>.

²³ Lancet. 2012. "A Comparative Risk Assessment of Burden of Disease and Injury Attributable to 67 Risk Factors and Risk Factor Clusters in 21 Regions, 1990—2010: A Systematic Analysis for the Global Burden of Disease Study 2010. 380 (9859) (December 15): 2224–60. doi:10.1016/S0140-6736(12)61766-8.

the needed services tailored to these needs. Traditional hospitals have been criticized because they are organized in silos based on clinical disciplines²⁴ (...while *patients have an increase number of simultaneous health problems*), they are oriented to providing episodic treatments (while *many patients suffer chronic conditions*), and they operate with batches and queues and with full-time work schedules of less than 40 hours per week. Primary health care (PHC), originally designed to be supported by basic technology, is also criticized for its limitations in providing access to more modern solutions.²⁵ Individuals increasingly present complex comorbidities that challenge the traditional model of PHC service delivery and necessitate access to modern technologies. Access to first-line technologies could be improved by promoting GP group practices, while access to more complex technologies are more appropriate at the secondary level of care. Moreover, to meet changing health needs, traditional PHC needs to be reoriented from episodic case management to a focus on risk factors and more integrated and comprehensive case management. Therefore, to meet changing demands most efficiently and effectively, modern health systems must be structurally reoriented and rationalized.

10. International experience indicates that some of the key features required to cope with the disease burden in Croatia are:

- (i) Supporting effective primary care services to play an important role in early detection, prevention, and health promotion, manage the bulk of routine conditions and act as an effective gatekeeper for patient access to referral care;
- (ii) Expanding secondary specialized services by introducing high-resolution outpatient diagnostic and treatment schemes for higher-volume, lower-cost specialized services including outpatient surgeries, day care, and specialized care for non-severe complications of chronic conditions;
- (iii) Rationalizing inpatient services by reducing the focus on inpatient care, increasing the use of cost-effective interventions, and improving quality of care with the best mix of technology and human resources inputs. Rationalizing inpatient services differentiates general hospital “secondary” services from “true tertiary care” or highly specialized hospitals, as necessary;
- (iv) Providing palliative care for terminally ill patients and long-term health care for rehabilitation; and
- (v) Providing nonhospital facilities for long-term social care (LTSC) for the elderly and other groups in need of such care.

11. Rationalizing the health facility network is a key priority in Croatia. The institutional structure and capacity of the publicly funded health sector in Croatia continues to be organized around an outdated model of care with services delivered in an inefficient way. Hospitals continue to provide services that can be better and more cost-effectively provided in an outpatient setting. Moreover, LTSC for the elderly is provided in hospitals, while LTC can be better and more cost-effectively be delivered in nursing homes or assisted living facilities. At the same time, primary care is not acting as an effective gatekeeper; its role in preventive care needs strengthening. The structure of the health facility network does not longer respond appropriately to the demographic profile of the population; it is not organized to address comorbidities, focus on risk factors effectively, or reflect citizen preferences. Governance capacity to

²⁴ O'Connell, T., D. I. Ben-Tovim, B. C. McCaughan, M. G. Szwarcbord, and K. M. McGrath. 2008. "Health Services under Siege: The Case for Clinical Process Redesign." *Medical Journal of Australia* 17 (6 Suppl.): 9–13.

²⁵ WHO (World Health Organization). 2008. "The World Health Report 2008: Primary Health Care, Now more than Ever." World Health Organization, Geneva.

effectively manage a modern health system is also scarce, a concern recognized by the MoH in the 2012–2020 National Health Care Strategy. A key illustration of this capacity gap is the failure to generate and use disaggregated data, for instance, by county, in monitoring and tracking county-level differences in quality and outcomes.²⁶

12. The proposed Program appropriately recognizes that the hospital sector is vital to the efficiency and cost control agenda in Croatia. Hospital expenditures continued to increase in Croatia between 2005 and 2011. At 47 percent, hospitals account for the largest proportion of public expenditures on health. This is so despite payment reforms to control increasing costs, such as the introduction of Prospective Payment per Therapeutic Procedure in 2006, Diagnosis Related Groups (DRGs) in 2009, and prospectively defined annual caps on payment. The DRG system has increased efficiency by reducing the length of hospital stays for some evaluated groups. Yet, as mandatory health insurance fund's expenditures on hospital care were still increasing, it is clear that further efforts are needed. Incentives in payment methods to hospitals also need to be revised to increase efficiency. Currently, the Croatian Institute for Health Insurance reimburses hospital services that should be provided in a Long Term Care setting and those that should be provided as outpatient services; in the same way as in “true” inpatient services. This reinforces inefficiencies and therefore indicates the potential for future savings. To illustrate, a recent analysis commissioned by the World Bank found that only 1.8 percent of surgeries were, as it should be, performed as specialized outpatient services²⁷. The remaining 98.2 percent were delivered in a traditional hospital inpatient setting with concomitant higher costs (and higher bills for the public payer).

13. Introducing performance-based payments in primary care and implementing clinical care pathways is critical to reduce referral rates from primary care to higher levels of the health system and improve both quality and efficiency of health services. High referral rates in primary care in Croatia also contribute to low efficiency and higher health costs. Gatekeeping in PHC is intended to act as a filter and to control patient flows into secondary-level care (with the exception of emergency care). When PHC plays this gatekeeping function and is combined with capitation-based payments—such as in Denmark, Ireland, Italy, the Netherlands, Portugal, Spain, and the UK—it can be a potentially effective approach to controlling costs. There is a clear need to strengthen the gatekeeper function of primary care. Referral rates in Croatia are 25 percent—whereas referral rates from robust primary care typically vary between 5 and 12 percent in different health systems, although there are no uniform standards.²⁸ The incentives inherent in provider payment systems in Croatia contribute to this. Although some payments to primary care providers are linked to services, the main payment mechanism is capitation, which incentivizes providers to refer cases. Furthermore, there are no updated care pathways defining the scope and role of primary care services in implementing clinical guidelines. The 2012–2020 National Health Care Strategy states that group practices are important because they provide opportunities for integrating primary health care services with greater efficiency. Continuity of services and quality of work can be improved by sharing space, equipment (diagnostic and treatment), nonmedical services, organization of standby duties and replacements, planning and implementing additional preventive and curative programs (vaccination, home visits, and so forth), and possibilities of sharing professional consultations and clinical expertise among the partners. HZZO also has a direct interest in promoting establishments of group practices since

²⁶ Although these data are collected, they are not analyzed to support management or oversight, and in fact a recently closed World-Bank-supported project built capacity for analysis. Reporting by county in Croatia is available from December 2013. Preliminary results show, for example higher infant mortality rates in the east of the country.

²⁷ The surgeries assessed were cataract surgery, testicular surgery, and surgeries for varicose veins, inguinal/femoral hernia, anus (hemorrhoids), removal of osteosynthetic material, and tonsillectomy.

²⁸ Sweeney B (1994) The referral system, BMJ 1994;309:1180-1181L

the monitoring costs are lower than for individual offices. Consequently, the HZZO has recently started to provide financial incentives for primary health care teams to establish group practices.

14. Quality improvement in Croatia is one of the most promising areas of improvement. Health data are not analyzed or disaggregated at the local level. The only available data to probe for local variations in quality are those from the civil registration system. In itself, this is an indication that a focus on quality improvement is needed. The data available from civil registration show regional disparities in infant mortality among counties in Croatia, indicating regional inequities and underlying variations in quality that need to be further investigated. Finally, strengthening the emphasis on preventive care and promoting healthy lifestyles can help to reduce costs associated with non-communicable diseases (NCDs) by preventing both disease and complications thereto. The Program proposes to strengthen the quality improvement agenda primarily by incentivizing the introduction of clinical care pathways based on evidence-based guidelines and disease management protocols. Routine technical audits (that is, audits that seek to assess adherence to protocols) with payments linked to protocols will incentivize improvements in quality of care for both primary care and higher-level services.

15. Health Technology Assessment (HTA), in particular, can improve efficiency of resource use and contain costs.²⁹ Experience from countries with mature health systems in Europe and elsewhere indicates that introducing HTA can be a good tool to increase quality and the efficiency of resource use, and contain costs by basing decisions on public subsidies for new technologies using a systematic and transparent appraisal and deliberation process that considers efficacy, cost-effectiveness, and other criteria. In Croatia, the continuous implementation of HTA is critical to capture quality and efficiency gains, and implementing HTA along with centralized procurement through framework agreements will increase the efficiency of resource use, contain costs, and improve quality of care through evidence-based decision making.

B. Program's Results Framework and Monitoring Indicators

16. In order to monitor progress toward achieving the PDOs, the Program Results Framework will use two PDO-level Results Indicators, and 14 Intermediate Results Indicators. Out of all the PDO and Intermediate Results Indicators, 10 were selected as Disbursement-Linked Indicators (DLI) because of their ability to measure and incentivize key intended changes in the health sector.

17. Since the Program aims at improvements at the health system level by strengthening its quality, efficiency, and sustainability aspects, the measurement and verification of the progress toward achievement of the Program's objectives will be based on the country's existing monitoring and evaluation systems. Specifically, the HZZO health information systems will be relied upon to collect and provide aggregated reporting of monitoring data related to the HZZO's role in contracting services and monitoring/control of quality of service delivery, such as the total number of contracted acute care beds, performed elective surgeries, and doctors' prescription patterns. While monitoring data for most of the Intermediate Results Indicators would be provided by the HZZO and AQAHs, the MoH, through its Department for the Implementation of International Loans, will provide the necessary system-level data for the result framework, such as public spending made through centralized procurement/framework contracts, implementation of hospital reshaping activities, and data related to establishment of group practices. Given its strategic oversight role, the MoH will ultimately be responsible for monitoring the progress toward achievement of the Program's results and for ensuring timely collection and reporting of

²⁹ European Observatory on Health Systems and Policies. 2008. "Ensuring Value for Money in Health Care: The Role of Health Technology Assessment in the European Union." European Observatory, London".

monitoring data and provision of necessary verification documents to the World Bank and Ministry of Finance (MoF). Upon achievement or partial achievement of a DLI, the Ministry of Health would provide to the Bank evidence that the DLI has been met according to the agreed Verification Protocol. If considered needed, the Bank would request assessments/audits by independent agencies acceptable to the Bank to verify the data supporting the achievement of the DLI/DLIs.

18. The Bank will conduct implementation support visits based on the detailed Implementation Support Plan (Annex 9), whose focus would be on timely implementation of the agreed Program Action Plan (Annex 8), provision of necessary technical support, conduct of fiduciary reviews, and verification of results including physical field visits, where appropriate.

C. Institutional Arrangements and Capacity

19. The three most critical stakeholders involved in implementing the proposed Program are the MoH, the Croatian Institute for Health Insurance (HZZO), and the AQAHs. In the context of the proposed Program, the MoH is the primary beneficiary that will be responsible for using the funds available through the proposed Program to support the reform and restructuring of Croatian health care system according to priorities and directions defined in the Government program 2012–2020. The MoH is the main stakeholder responsible for implementing reforms that will achieve the results targeted by the proposed Program. As the single payer in the mandatory health insurance system, the HZZO has a central role to play in achieving the proposed Program results in terms of collecting data and using contracting (of health facilities/GPs) and monitoring/control/quality supervision mechanisms to implement the desired changes in the health care system (for example, contracting and payment based on Key Performance Indicators and Quality Indicators, stimulating outpatient surgeries, monitoring prescription patterns, auditing hospitals, and incentivizing GP group practices). The MoH is, however, responsible for supervising HZZO activities and for contributions to HZZO revenues, because mandatory insurance constitutes a part of the State Budget revenue. The MoH is currently also responsible for managing all but one hospital. In the long term, however, once the financial rationalization of hospitals is completed, the MoH will once again decentralize management. Finally, the AQAHs is responsible for supporting the HZZO in ensuring the quality of contracted providers from which the HZZO purchases mandatory health insurance services. The AQAHs' main contribution in this respect is to facilitate and implement accreditation of health care institutions and define standards of quality in service provision.

20. Institutional capacity in Croatia is high and not a major risk to implementation. However, a key gap in capacity relevant to achieving the proposed Program results is the capacity to develop and apply quality improvement guidelines and protocols. The MoH anticipates using technical assistance to remedy this concern. A second key institutional capacity gap in this context relates to providers' management capacity to respond to incentives and supply-side support provided to improve quality and efficiency under the Government program. Relatively weak management capacity at the provider level is indicated by the large arrears accumulated by hospitals in Croatia. The MoH is currently addressing this issue by centralizing management control of hospitals in order to improve their financial management and building the necessary management capacity. If long-term management capacity is not built successfully, this could compromise the achievement of the proposed Program results.

D. Expenditure Analysis

21. With overall health spending at 7.8 percent of GDP, Croatia is near the top of the list compared to new EU members, and spends more than countries with similar GDP per capita in the region. At 17.7 percent, the health sector's share of public expenditures (about EUR 3.1 B) is higher than the 15.6 percent average for all EU countries (although it is true that some social security expenses beyond the strict health system, such as sick and maternity leave, are also included in that figure). In this fiscally constrained

environment, the Croatian health system faces a mismatch among available public resources, growing expenditures, and increasing needs. Health financing is organized according to social health insurance principles. A single fund, the Croatian Institute for Health Insurance (HZZO), covers the entire population (about 4.3 million beneficiaries are comprised of: 1.52 million active workers, 1.05 million pensioners, 1.15 million family members, and 0.63 million individuals covered by special programs).

22. The bulk of HZZO's revenue comes from contributions collected from the population augmented by transfers from the Government for "mandatory activities." The following categories of the population are expected to contribute to the fund: active workers (34 percent), active farmers (0.8 percent), and pensioners (24.1 percent). Dependents of these categories, insofar as they are not contributors in their own right, are automatically covered (26.4 percent). Formal exemptions include the unemployed and 100 percent disabled, organ and blood donors, who, when combined, represent 14.6 percent of the insured. People working in the grey economy do not contribute and yet receive coverage. There is a formal and explicit mechanism by which the state contributes on behalf of exempted categories.

23. Contributions to the compulsory health insurance scheme are paid to the treasury and form part of the state budget from which the HZZO receives funds to cover mandatory health insurance. The compulsory health insurance scheme is not entirely dependent on contributions from salaries but also receives central government transfers.

24. The proposed Program supports 5 out of the 8 Government program defined priorities. The Bank contributions represent 41 percent of the total Program estimated cost or 18 percent of the total Government program.

E. Economic Evaluation

Economic rationale for the program

25. Croatia produces relatively good outcomes, but at a cost that is increasingly difficult to sustain in a constrained fiscal environment. The production costs associated with the current service delivery model in Croatia are high, and reorganization is needed to use limited resources more efficiently. At the same time, technological advances exert an upward pressure on health spending while offering opportunities for efficiency, if harnessed appropriately.

26. The contribution rate on wages for mandatory health insurance is not sufficient to fund the health system at the current level of benefits, and this is a part of the impetus for the proposed Program. The contribution rate, which was initially set at 18 percent (in 1993), was reduced steadily over the years and in 2012 it reached 13 percent. This level of contribution rate may not be sufficient to fund the health system at the current level of benefits, but higher rates could undermine the competitiveness of the Croatian economy. The reliance on contributions versus other sources of public revenues to fund the system will have to be revisited periodically, since aging increases the pressure on expenditure and is likely to lead to a shrinking of the population that can contribute from salaries.

27. Elements of the current service delivery model that create inefficiencies include the following:

- Referral rates from primary care are high (25 percent), indicating that it does not play the role of an effective gatekeeper via early detection, prevention, and health promotion.
- A lack of high-level outpatient diagnostic and treatment centers. Services that can be provided as outpatient services with advances in technology continue to be delivered as inpatient services in Croatia.

- Palliative care for terminally ill patients, long-term health care for rehabilitation, and long-term social care for the elderly and other groups are provided in acute care hospital beds at high cost when they can be delivered more effectively and cheaply in low-cost settings.
 - There is fragmentation in service delivery. The increasing incidence of co-morbidities makes coordination of care more important than ever before. Lack of coordination in the Croatian health system creates barriers to timely referrals and also gaps in, and overlapping of, resources.
 - The lack of clinical guidelines/care pathways contributes to the current overuse of technology, lack of quality control (technical audits), and missing coordination of care across the health system.
28. Incentives in the payment system exacerbate these inefficiencies.
- Capitation-based payments to primary care providers create incentives to underprovide services and to refer patients in the absence of measures that counteract these incentives.
 - Hospital payments do not include incentives to deliver services on an outpatient basis, or to improve quality of care.

Cost-effectiveness Analysis

29. Given the wide range and complexity of reforms to be supported by the Program, its economic rationale has been foremost assessed conducting a cost-effectiveness analysis that compares some specific services in the current service delivery model with the new proposed service delivery approaches.

The current situation compared to the situation after achieving Disbursement-Linked Indicators (DLIs) 1 and 4

30. *DLI 1. Total number of hospital beds in Rationalized Hospitals³⁰ classified as Acute Care Beds.* The aim of DLI 1 is to reduce the production costs associated with service delivery by converting 20 percent of acute care beds into social beds, long-term care beds, or day care posts.

31. *DLI 4. Percentage of all surgeries included in the elective surgeries list³¹ performed as outpatient surgeries in the preceding six months.* DLI 4 supports DLI 1 by incentivizing outpatient surgeries where these are appropriate.

32. Table 7 displays a list of procedures that are currently performed in Croatia as inpatient surgeries that could rather be provided as outpatient services with little delay. Table 8 compares the general current situation in Croatia to the one after the proposed Program's implementation and provides some evidence on the cost savings from decreasing the number of hospital beds.

³⁰ As defined in the Hospital Master Plan.

³¹ Elective surgeries: Abdominal hernia surgery, cataract surgery, local excision and removal of internal fixation, except on hip and femur, palmar fasciectomy for dupuytren's contracture, tonsillectomy.

Table 7. Savings in Outpatient Costs Compared to Inpatient Costs for the Same Procedure, with Evidence

Source	Country	Procedure(s)	Unit Cost Saving (%)
Babson 1972	UK	Hernia repair and varicose vein surgery	40–44
Prescott et al. 1978	UK	Hernia repair and varicose vein surgery	65
Evans and Robinson 1980	Canada	Paediatric surgery	70
Coe 1981	United States	Hernia repair	65
Flanagan and Bascom 1981	United States	Hernia repair	70
Rockwell 1982	United States	Hernia repair	45
Caldamone and Rabinowitz 1982	United States	Orchidopexy	56
Pineault et al. 1985	Canada	Hernia repair and tubal Ligation	12–26
Heath et al. 1990	UK	Laparoscopy, arthroscopy and cystoscopy	49–68
Arregui et al. 1991	United States	Laparoscopic cholecystectomy	46
Mitchell and Harrow 1994	United States	Hernia repair	36
Kao et al. 1995	United States	Anterior cruciate ligament Repair	58
Mowschenson and Hodin 1995	United States	Thyroidectomy and para-thyroidectomy	30
van den Oever and Debbaut 1996	Belgium	Inguinal hernia repair	43
Zegarra et al. 1997	United States	Laparoscopic cholecystectomy	25
Levy and Mashoof 2000	United States	Open Bankart repair	56
Kumar et al. 2001	UK	Anterior cruciate ligament repair	20–25
Rosen et al. 2001	United States	Laparoscopic cholecystectomy	11
Lemos et al. 2003	Portugal	Laparoscopic sterilization	62.4

Source: European Observatory on Health Systems and Policies. 1993. "Day Surgery: Making it Happen." Policy Brief: European Observatory on Health Systems and Policies, London.

Table 8. Transforming Inpatient Services into Outpatient Services

Current Situation	After Proposed Program Implementation
The system is focused on inpatient services; patients need to be admitted to receive secondary services. There are very few facilities for specialized outpatient services and secondary outpatient care (diagnosis and treatment). Large number of hospitals and of acute care beds (5.2 beds per 1,000 population in 2012). (EU average = fewer than 4 per 1,000 population.)	At least 60 percent of elective surgeries paid by the HZZO and included in a list of elective surgeries to be performed as outpatient and day surgery. This includes: abdominal hernia surgery, cataract surgery, local excision and removal of internal fixation, except on hip and femur, palmar fasciectomy for dupuytren's contracture, tonsillectomy. The number of acute care beds reduced by 20 percent from 15,930 acute care beds in 2012 to 12,800 beds in 2017.
Evidence: Studies have shown that decreasing the number of hospital beds seems to have increased the cost of hospital care per person treated. However, this cost increase is a consequence of implementing different admission criteria, which emphasize treating more severe cases that will require more complex treatment and for longer periods, (increasing the average number of days of a hospital stay).	
In addition to the medical and social outcomes, the costs of day care and outpatient surgery over inpatient surgery are between 25 and 68 percent lower than for the same procedures carried out on an inpatient basis.	

For instance, a World Bank study in Romania.³² estimated that shifting approximately 15,000 beds to long-term and social care would save approximately US\$47.8 million per year, and that closing approximately 30,000 beds would produce savings of about US\$240 million per year. This calculation was based on the following assumptions: (a) there is no change in utilization patterns, only in the number of beds; (b) annual cost per bed equals hospital costs divided by total number of beds; (c) long-term and social care costs per bed are 60 percent cheaper than acute hospital care; and (d) the number of acute care beds is reduced from 130,000 to 100,000.

The current situation compared to the situation after achieving DLIs 2 and 3

33. *DLI 2. Number of “Hospital Reshaping Scheme”³³ projects implemented.* The aim of this DLI is to implement two model hospital reshaping schemes to reorient the service delivery infrastructure so that health service delivery is re-profiled to match changing needs and harness technologies for greater efficiency.

34. *DLI 3. Percentage of rationalized hospitals without arrears incurred during the preceding calendar year.* The target number is for 80 percent of hospitals to be financially consolidated by the end of the proposed Program.

35. Table 9 compares the current service delivery infrastructure to the one after the proposed Program’s implementation in a rationalized and modernized hospital services system.

Table 9. Reorienting the Service Delivery Model and Implementing the Hospital Reshaping Schemes

Current Situation	After the Proposed Program’s Implementation
<p>Services that would be delivered more cost-effectively on an outpatient basis with potentially improved medical and social outcomes for patients are currently delivered as inpatient services in Croatia. Primary care physicians are greatly underutilized. The distortions in health service delivery lead to the underuse of prevention measures and inefficient use of health technology (diagnoses, treatments, and pharmaceuticals). This contributes to the higher production costs associated with service delivery in Croatia.</p>	<p>The initiation of well-designed hospital reshaping schemes is expected to improve this situation. For instance, a “3X (1+1)” scheme would involve three institutions operating as hospitals today that become one substantially more modern hospital plus one full-fledged outpatient and day care center and a third one that would provide much less complex services at the secondary level. Regional networks are defined which possess differentiated “true tertiary care” hospitals performing as heads of the networks. All the institutions would deal with diseases (e.g., cardiology, radiology, orthopedic surgery, ophthalmology, etc.) that currently experience service bottlenecks and would be provided with the necessary legal status, managerial responsibilities, and budgetary flexibility. These interventions are expected to increase efficiency by reducing waste and creating economies of scale and of reach and by reducing duplication and unnecessary spending. This initiative will also include the development of a framework for the rational organization of health services aimed at increasing the efficiency, and improving the quality, of care provided in the system. The proposed Program would support implementation of two model reshaping schemes. It is anticipated that these models would be implemented across Croatia with support from other sources such as EU structural funds.</p>

³² World Bank. 2008. “Romania Human Development Program Knowledge Note - Health Sector.” World Bank, Washington, DC.

³³ Following finalization of the Hospital Master Plan, the Ministry of Health will identify two or more potential hospital reshaping schemes in agreement with the Bank and implement at least two of the agreed projects to their full functionality as defined in the MoH approved proposals.

Evidence:

This is a new idea, so there are no evaluations of similar projects from which to learn lessons. However, examples abound at the international level of innovative patterns of care adopted in response to unit cost increases, changes in morbidity profiles, and citizens' expectations.

Many Western European countries have been experimenting for a number of years on emphasizing patient-focused care based on the principles of hospital *reengineering* (by introducing, for example, clinical protocols, integrated patient records, patient grouping, multidisciplinary care teams, cross training, and decentralized decision making). There is now a clear trend in these countries toward reducing the number of hospital beds and transferring services to day care units. This not only has not diminished the health system's ability to cope with the existing workload, but has actually increased output. This was the case in England. The trend continues to the present day and is combined with efforts to provide "integrated care under one roof."

For decades, the Netherlands has had a Bismarckian type of health care system. The number of general hospitals in the Netherlands dropped from about 200 in 1950 to 95 in 2009, including eight academic hospitals and two specialized hospitals. The decline was mainly the result of regional mergers of hospitals to improve the quality of care and/or to ensure their financial survival. Due to consolidations, the average number of beds per general hospital significantly increased from 349 in 1980 to 498 in 2008 (in 2008 the smallest hospital had 138 beds and the largest had 1,368 beds).^a This increase was paralleled by a drop in the total number of general hospital beds from about 60,000 beds in 1980 to approximately 42,350 beds in 2008. Despite this reduction, because the length of hospital stay was significantly shorter, the number of patient days dropped by 41 percent, and hospital production increased (hospital admissions grew by 143 percent). In addition, in 1990, 21 percent of hospital admissions were dealt with in outpatient clinics compared with 46 percent in 2006.

New insurance legislation explicitly authorized health insurers to reimburse the costs of health services provided by "independent treatment centres" that specialized in ophthalmology, dermatology, maternity and child care, orthopaedic surgery, cosmetic surgery, radiology, and cardiology. As a result, the number of these services grew from 31 in 2000 to almost 160 by the end of 2006.^b

The same approach is now the rule in most Western European countries, as attested to by the European Observatory on Health Systems and Policies and the Organisation for Economic Co-operation and Development countries.

Such changes often include the long-anticipated need to design or redesign the physical environment of a hospital. This need has been confirmed by research in the Netherlands. The Dutch competition "Future Hospitals: Competitive and Healing," asked researchers: "which functions absolutely need to be in the core hospital building and which functions could be located elsewhere?" The conclusion was that only a little over 50 percent of the traditional floor area is needed, mostly for the "hot" floor^c functions. Other areas such as hotel, factory, and office functions could be located elsewhere (Netherlands Board for Health Care Institutions 2006).

Note:

- a. Maarse, H., and L. Lodewick. 2011. "Governing Public Hospitals." European Observatory on Health Systems and Policies."
- b. Bartholomée, Y., and H. Maarse. 2006). "Health Insurance Reform in the Netherlands." *Eurohealth* 12 (2): 7–9.
- c. Hot floor areas are the treatment facilities (excluding hotel/rooms and offices).

The current situation compared to the situation after achieving DLIs 5, 6 and 10

36. *DLI 5. Percentage of best-performing rationalized hospitals which are publicly disclosed (including results) based on the technical audit³⁴ in the preceding 12 months.* The aim of DLI 5 is to ensure that the HZZO, as a single payer, along with other public authorities who own health facilities, agree on and hold hospitals accountable to meet key performance standards, including quality-oriented

³⁴ Technical audits are based on explicit key performance indicators (KPI) as defined by the HZZO, and quality indicators (QI) as defined by the AQAHS.

disease management arrangements such as explicit protocols to fight NCDs, through a systematic audit process that is implemented at least once a year.

37. *DLI 6. Percentage of rationalized hospitals accredited by AQAHs through the Acceptable Accreditation Process.* The aim of DLI 6 is to ensure that at least 70 percent of hospitals in Croatia meet minimum standards for service quality and adequacy.

38. *DLI 10. Percentage of hospitals with surgery wards that have established quality- and safety-related sentinel surveillance schemes that are reporting the rates of specific events³⁵.* DLI 10 aims at establishing sentinel surveillance schemes as a quality control mechanism and component of a modernized health information system.

39. Table 10 compares the situation before the proposed Program's implementation to the one after and provides evidence on the benefits of introducing a health information system evolving around clinical guidelines and care pathways.

Table 10. Improving Quality through Audits, Accreditation Procedures, and Quality Control Mechanisms

Current Situation	After the Proposed Program's Implementation
<p>Few clinical guidelines are being used and the sector is not aligned with Croatia's population needs and resources. This lack of guidelines (or care pathways) means that there is no quality control and leads to an overuse of technology.</p>	<p>The new set of protocols will be used to emphasize equity and ease of access and use of "care pathways." These protocols and other quality control measures will be enforced through technical audits. While in the short run the additional audits are likely to increase administrative costs, the savings that will accrue will be more than sufficient to finance these audits.</p> <p>In addition, the information system will introduce different algorithms to assess quality, identify overuse or potential fraud situations, and sharpen the focus of the technical audits.</p> <p>Hospitals must pass a MoH-defined accreditation process in order to keep operating. This process enforces the requirement that hospitals actually meet the quality standards measured by key performance indicators (KPI) and quality indicators (QI). As a consequence of this measure, the quality of the hospitals in operation will improve.</p> <p>A sentinel surveillance system will be implemented that reports readmissions, adverse effects, and incidences of preventable specific medical events. Such a surveillance system allows for timely monitoring and investigation of suspected public health problems. It thereby contributes to a better quality of health care in general and complements the measures undertaken to improve the quality of services provided within hospitals.</p>
<p>Evidence:</p> <p>Health economists assert that, to maximize the population's health status, health services should prioritize the most cost-effective interventions. Clinical guidelines and care pathways based on evidence can give providers advice on which treatments to offer under which circumstances and are, therefore, ideal tools for promoting cost-effective clinical practice.</p> <p>Care pathways are a tool to promote the best possible treatment within an existing level of resources. Several</p>	

³⁵ Including: (a) non-traumatic, diabetes-related lower-limb amputations; (b) surgery on the wrong patient and surgery of the wrong body part; and (c) postoperative pulmonary embolism and deep vein thrombosis (information will be disaggregated by gender).

studies have proved that they help improve patient outcomes and the quality of health services, facilitate the continuous training of the human resource in health and reduce inequities.^a While the primary reason for implementing care pathways is improving the quality and increasing the equity of health service delivery and patient outcomes, several studies have shown that they can also reduce length of hospital stays, decrease unnecessary resource use, and increase patient satisfaction.^b How much can be saved by introducing new or updated care pathways varies greatly depending on the health problem. In some cases, a new care pathway can increase costs due to the introduction of a new technology or new drugs, whereas in others (as is the case of Croatia), it will reduce costs by mandating outpatient treatment for health problems that were previously managed on an inpatient basis. However, in all cases, using care pathways will make it possible to carry out technical audits and will keep down the costs of expensive technologies and drugs for which there is little or no evidence supporting their use.

In the countries where care guidelines are regularly used, if a new treatment both improves health outcomes and reduces costs, then clinical guidelines are updated to recommend the new treatment. If the new treatment both reduces health outcomes and increases costs, then no change is introduced and the guideline continues to endorse the standard treatment. However, if the new treatment is both more effective at improving health outcomes but more costly, then policy makers must judge whether the health gains are large enough to justify the additional cost. This is usually done by calculating the incremental cost-effectiveness ratio (ICER) and comparing it with a pre-specified cost-effectiveness threshold. The ICER is the difference between the mean costs of each strategy divided by the difference in mean health outcome (the slope of the line that connects the strategies).

The evaluation of the impact of implementing care pathways is done on a case-by-case basis and is often used to recommend a single drug or a specific surgical procedure or to define a protocol for combining several therapeutic alternatives. These evaluations yield evidence that can be used to continuously revise the guidelines.

Sentinel surveillance. In a sentinel surveillance system, a prearranged sample of reporting sources agrees to report all cases of defined conditions, which might indicate trends in the entire target population. When properly implemented, these systems offer an effective method of using limited resources and enable prompt and flexible monitoring and investigation of suspected public health problems. Examples of sentinel surveillance are networks of private practitioners reporting cases of influenza, laboratory-based sentinel systems reporting cases of certain bacterial infections among children, or pregnant women in prenatal care who report HIV infection in cases of generalized epidemics where HIV is over 1 percent in the general population.^c Sentinel surveillance is excellent for detecting large public health problems, but it may be insensitive to rare events, such as the early emergence of a new disease, because these infections may emerge anywhere in the population.

Note:

- a. <http://www.who.int/hiv/topics/surveillance/2ndgen/en/>. EuSANH: European Science Advisory Network for Health. <http://www.eusanh.eu/about-eusanh>
The Cochrane Collaboration. “Evidence-based health care and systematic reviews.” <http://www.cochrane.org/about-us/evidence-based-health-care>.
The National Institute for Health and Clinical Excellence (NICE). “The benefits of implementing clinical guidelines.” http://www.nice.org.uk/usingguidance/benefitsofimplementation/benefits_of_implementation.jsp.
- b. Trubo, R. (1993). “If this is cookbook medicine, you may like it.” *Medical Economics* 1993; 70:69–72, 77–78, 80–82.
Lord, J. (1993). “Practical strategies for implementing continuous quality improvement.” *Managed Care Quarterly* 1993; 1:43–52.
London, J. (1993). “On the right path: collaborative case management makes nurses partners in the care planning process.” *Health Progress*. 1993; 74:36–38.
- c. World Health Organization. “Second Generation Surveillance for HIV/AIDS,”

The current situation compared to the situation after achieving DLIs 7 and 8

40. *DLI 7. Percentage of identified doctors³⁶ with whom corrective course of action has been discussed on a person-to-person basis in the preceding six months.* The aim of DLI 7 is to ensure that pharmaceutical prescription practices of doctors are monitored by the HZZO and feedback on unsatisfactory practices discussed with doctors, along with corrective action that doctors will take so that prescription practices improve.

41. *DLI 8. Percentage of total public spending per fiscal year on medical consumables, drugs, and devices for hospital (inpatient and outpatient) services made through centralized procurement/framework contracts and disclosed on the MoH website.* DLI 8 assures that the potential cost savings from centralized procurements are used and that centralized procurement is conducted in a transparent way.

42. Table 11 compares the current situation with the one after the proposed Program's implementation with respect to spending on pharmaceuticals and provides evidence for the successful use of HTAs, generics, and central procurement in controlling costs related to pharmaceuticals.

Table 11. Saving Costs through Prescription Monitoring and Centralized Procurement

Current Situation	After the Proposed Program's Implementation
<p>A large and rapidly growing proportion of health care expenditure in Croatia is for medicines. The pharmaceutical market in Croatia was valued at €611 million in 2011.^a Pharmaceutical expenditures are increasing faster than GDP and outstripping expenditure growth in other sectors of the health care system.</p>	<p>Health Technology Assessment (HTA) is a vital input to define the drugs to be prescribed and, therefore, promotes efficiency of resource use and also helps to contain cost escalation.</p>
<p>A substantial proportion of the funds at the disposal of the HZZO are spent on pharmaceuticals and expensive drugs (approximately 20 percent of total health expenditure under mandatory health insurance in 2011), which is high compared with other European and former Eastern Bloc countries, and represents a fiscal imbalance in the management of the health budget.</p>	<p>The pharmaceutical prescription practices of doctors are monitored by the HZZO, and the health information system that is being extended for monitoring prescriptions will give doctors feedback on their prescribing practices and will help reduce prescription fraud and improvident spending. This measure helps to ensure adherence to the recommendations obtained from HTA.</p>
<p>The payment system in Croatia does not penalize primary health providers for the prescription of high-cost pharmaceuticals. Consequently, primary care providers do not have sufficient incentives to take into account the costs of their prescriptions and contribute to over-prescription of pharmaceuticals. Little is done to monitor and/or evaluate prescribing or promote rational drug use.</p>	<p>The improvement in expenditure efficiency achieved through prescription monitoring is further enhanced by centralized procurement of pharmaceuticals.</p>
<p>The potential for cost savings from centralized procurement and the use of framework contracts has not yet been fully exploited.</p>	<p>As a consequence, the total budget expended on pharmaceuticals will reach a peak and remain stable or start to decline.</p>
<p>Evidence:</p> <p>Heath Technology Assessment (HTA). Almost all European Member States have experienced exponential growth in the use of health technologies in recent years (new pharmaceuticals, diagnostic procedures, and medical</p>	

³⁶ Doctors for whom HZZO-defined prescription patterns in the preceding six months were found to be “unsatisfactory”.

equipment). The National Institute for Health and Clinical Excellence (NICE) in the United Kingdom was the first national attempt to provide faster access to cost-effective treatments through an evidence-based review process.^b Soon after, most Western European countries began using HTAs to assess the costs and benefits of introducing each new drug, piece of equipment, or procedure. The cumulative savings from implementing HTAs is difficult to estimate, but there is a huge potential for savings to be made in Croatia. Most HTAs focus their analysis on implementing a specific new guideline. For example, an evaluation of the “Effective Health Care Bulletin” in England that was dedicated to the treatment of the persistent glue ear in children was estimated to have resulted in savings of £27 million in the four years after the new guidelines were published.^c

Generic drugs. The economic benefit of increasing the use of generic medicines is obvious; generic drugs produce savings of 10 to 90 percent compared with the original patented product depending on the different drugs. Most European countries introduced policies to encourage generic drugs many years ago, with significant differences in the proportion of use from country to country. The use of generic medicines is currently generating some €25 billion in savings each year for EU health care systems.^d

Centralized procurement. In Croatia, the Ministry of Health has already introduced new regulations promoting the procurement of generic drugs and centralizing procurement using competitive tendering and framework contracts for county hospitals. These reforms have already begun to yield savings; as a direct result of the first round of tenders in 2012, the Ministry of Health estimated that cost savings have been HRK 187 million (approximately EUR 24.5 million). At the same time, the average expenditure per insured individual and average expenditure per issued prescription have decreased.

Note

- a. European Federation of Pharmaceutical Industries and Associations. The Pharmaceutical Industry in Figures. Key Data 2013. Downloaded from <http://www.efpia.eu/uploads/Figures_Key_Data_2013.pdf> on September 26, 2013.
- b. European Observatory 2008. “Ensuring Value for Money in Health Care: The role of health technology assessment in the European Union”.
- c. Mason J. (2001). “Impact of Effective Health Care bulletin on treatment of persistent glue ear in children: time series analysis.” British Medical Journal. 2001 November 10; 323(7321): 1096–1097.
- d. European Generic Medicines Association 2011. “The Use of Generic Medicines in Europe.” <http://www.egagenerics.com/gen-geneurope.htm>.

The current situation compared to the situation after achieving DLI 9

43. *DLI 9. Percentage of primary health care doctors in the Republic of Croatia working in group practices.* The aim of DLI 9 is to strengthen the role of primary health care in prevention and health promotion and managing chronic conditions by incentivizing collaboration among groups of practitioners so they have the capacity to expand the delivery of prevention, health promotion, and chronic care management and thereby reduce referrals.

44. Table 12 compares the current role of primary health care to the situation after the proposed Program’s implementation and provides evidence on the benefits from handling the occurrence of NCDs via primary health care.

Table 12. Strengthening the Role of Primary Health Care through GP Group Practices

Current Situation	After the Proposed Program’s Implementation
Primary health care units do not play a strong role in delivering primary and secondary prevention services, or in managing chronic conditions. Referral rates from primary care units to higher levels of the health system are very high. In particular, the incentives inherent in the provider	A higher use of primary care for preventive services in accordance with clinical guidelines. Group practice will improve capacity to deliver effective primary care services because participating practitioners will bring a wider range of skills to the practice. It will also ensure that the bulk of routine conditions are managed at the primary care level, thus ensuring that primary care

<p>payment systems contribute to the underuse of primary health care services. The main payment mechanism is capitation, which incentivizes primary care providers to simply refer cases. At the same time, the disease burden shifted, and the effective treatment of chronic diseases becomes crucial for the optimum functioning of the Croatian health system. These diseases can be treated efficiently within primary health care institutions.</p>	<p>practices become gatekeepers for referral care. Only cases identified as complex and that require additional resources to specialty services will be referred. Group practices can increase the capacity of general practitioners (GPs) to deliver primary and secondary prevention services and prevent unnecessary referrals. The HZZO's payment rates will be higher for group GP practices than for solo GP practices, thereby incentivizing group practice.</p>
<p>Evidence:</p> <p>The costs and benefits of primary and secondary prevention have been evaluated in many different ways and with different outcomes depending on what interventions were involved and the prevalence of the health problem. Abundant evidence exists regarding the cost-effectiveness of reducing the prevalence of the four main risk factors for NCD (alcohol abuse, overweight/obesity, lack of physical activity, and tobacco use).^a Several of these interventions are primary prevention through population-based interventions (such as regulations to reduce tobacco consumption), and many others are secondary prevention that target individuals (such as drugs to reduce cholesterol and triglyceride levels).</p> <p>An increased use of clinical guidelines to treat complications associated with chronic conditions can be cost-effective. In the Netherlands, for example, an update of the clinical guidelines to treat diabetic foot complications resulted in longer life expectancy, gains in quality-adjusted life-years (QALYs), and reduced incidence of foot complications. The lifetime costs of managing diabetic foot complications by following guideline-based care reduced diabetic foot complications, raised survival rates, and yielded a cost per QALY gained of almost US\$25,000 and even cost savings.^b</p>	

Note:

- a. National Institute for Health and Clinical Excellence (NICE) in United Kingdom, Public Health Interventions Cost-effectiveness Database (PHICED), <http://www.crd.york.ac.uk/CMS2Web/>.
- b. Ortegon, M. M., W. K. Redekop, and L. W. Niessen. 2004. "Cost-effectiveness of Prevention and Treatment of the Diabetic Foot: A Markov Analysis." Netherlands Institute of Health Sciences. Diabetes Care 27 (4) (April): 901–7.

Cost-benefit analysis

45. **Costs of the Program.** The costs of the Program are considered the investment costs related to achieving the 5 priorities of the 2012-2020 National Health Care Strategy that the Program supports (180 EUR Million from 2012 to 2017 of which 75 EUR Million are from Bank funds, and 168 EUR Million from 2018 to 2020 from government funds).

46. **Benefits of the Program.** As stated in the Program description, the 5 priorities contain an interrelated cluster of interventions. Focusing on the 7 key interventions³⁷ listed in the Program description, the derived monetary benefits are the following.

47. The rationalization of hospital inpatient services is linked to one of the key results of the Program, namely the reduction of the number of inpatient hospital beds from 15,930 to 12,800 by the end

³⁷ Implementing more effective primary health care services, expanding secondary specialized services, rationalizing inpatient services, implementing palliative care/ long-term health care, expanding long-term social care, expanding Health Technology Assessment (HTA), expanding the Quality control mechanisms.

of the first phase of the Program in 2017. The expected savings related to this reduction in hospital beds constitute the first source of monetary benefits considered in this analysis.

48. The beneficial effect of more effective primary health care services, secondary specialized services, extended palliative as well as long-term social care services on the one hand, and extended Health Technology Assessments and Quality Control mechanisms on the other hand will be estimated using the impact on population health status measured in terms of Disability Adjusted Life Years (DALYs), which represent the sum of years of potential life lost due to premature mortality and the years of productive life lost due to disability.

49. Expected cost savings due to the extended use of centralized procurement are not being taken into account on the benefit side. The government has previously introduced regulations that promote the procurement of generic drugs as well as the use of centralized procurement mechanisms. These results have yielded estimated savings of approximately HRK 187 Million in 2012 (approximately 25 EUR Million), which indicates the huge potential for cost savings from procurement reforms in Croatia. The Program includes interventions aimed at assuring that a higher percentage of public health spending related to procurement is made through centralized procurement and framework contracts, but the benefits from these additional reform interventions are hard to disentangle from previous initiatives. Hence, the (likely considerable) cost savings attributable to further use of centralized procurement are not considered in this cost-benefit analysis.

50. Likewise, the monitoring of doctors' prescription patterns, which is part of the Program reforms, and the cost savings it generates is not taken into account as a source of benefits in this analysis. The estimation of those benefits considered is based on conservative assumptions.

51. The assumptions used in the cost-benefits analysis are listed below:

- **Basic discount rate.** Financial costs and financial savings are discounted at 3 percent (the average inflation estimated for the 2013-2017 period.³⁸) to account for future inflation. A higher discount rate of 6 percent is also applied to verify the sensitivity of the results to this assumption.
- **Period of time considered.** The cost-benefits of the interventions are calculated over the 2012-2017 period (for which the Bank funds are used) as well as over the 2012-2020 period.
- **Population covered.** In general, it is assumed that all interventions will be implemented nationwide. Therefore, the interventions will affect health results for the entire population, (around 4.3 million people in 2012) or the efficiency level of all facilities. Population growth up to the year 2020 is based on the World Bank's Health, Nutrition and Population (HNP) Statistics.
- **Expected disbursements of investments.** When discounting the financial costs of the Program, it is assumed that the funds provided by the Bank are disbursed according to the estimated disbursement schedule (see Program Financing Data³⁹). All funds contributed by the government are assumed to have been disbursed upon Program start in 2012 for the sake of a more conservative estimate of the Program's Net Present Value (NPV) and Internal Rate of Return

³⁸ Source: IMF. World Economic Outlook, April 2013.

<http://www.imf.org/external/pubs/ft/weo/2012/02/weodata/index.aspx>

³⁹ The 22.5 EUR Million from Bank funds expected to be disbursed in 2016 are considered as financial costs for implementing the first Program phase 2012-2017.

(IRR). Likewise, the additional government funds (168 EUR Million) for the period 2018-2020 are assumed to be completely disbursed in 2018.

- **Benefits of reforms beyond 2020.** Although the benefits from the Program will likely persist beyond Program completion in 2020, benefits beyond the year 2020 are not accounted for in this analysis due to the increasing uncertainty about the counterfactual scenario without the Program and recurrent costs from the Program interventions. This approach assures that the estimated benefits are conservative.
- Due to the interrelation of the supported interventions and the PforR nature of the project (making disbursements for a given intervention less related to the actual cost of implementing this particular intervention), the NPV and IRR are only calculated once for the whole package of interventions.

Expected Benefits from the Transformation of Hospital Inpatient to Outpatient Services

52. Table 13 states some of the evidence for the empirically well-documented fact that performing a wide array of procedures on an outpatient instead of an inpatient basis leads to considerable cost savings. The Program tries to capitalize on this opportunity for costs savings. DLI 1 is the reduction of the number of hospital beds from 15,930 to 12,800 by 2017. Based on this DLI, the benefits from the transformation of hospital services are considered.

53. The calculation of the benefits from the transformation of inpatient into outpatient services is based on the following additional assumptions:

- There is no change in utilization patterns due to the reforms, only in the number of beds.
- The annual cost per bed equals hospital costs divided by total number of beds.
- Long-term and social care costs per bed are 40 percent cheaper than acute hospital care.⁴⁰
- All beds are transformed into long-term and social care beds, no bed simply ceases to exist (making the obtained estimates of cost savings yet more conservative).
- The counterfactual in the absence of the Program is that the number of inpatient hospital beds does not change until 2020.

Table 13. Benefits from the Transformation of Hospital Inpatient to Outpatient Services (EUR '000s)

Discount Factor	2012-2017	2018-2020
	Benefits from Inpatient Bed Transformation	Benefits from Inpatient Bed Transformation
3%	168,924 EUR	267,938 EUR
6%	159,321 EUR	232,172 EUR

⁴⁰ World Bank. 2008. “Romania Human Development Program Knowledge Note - Health Sector.” World Bank, Washington, DC. The evidence in table 7 reflects this estimate.

Expected benefits from more effective primary health care services, secondary specialized services, extended palliative as well as long-term social care services, extended Health Technology Assessments, and Quality Control mechanisms

54. The benefits deriving from the above-listed interventions are estimated using the impact on population health status measured in terms of Disability Adjusted Life Years (DALYs) from NCDs. The additional assumptions made in the economic analysis of these interventions are:

- **Reduction in DALYs:** DALYs, which represent the sum of years of potential life lost due to premature mortality and the years of productive life lost due to disability, have a built-in age weighting and discount rate of 3 percent. The reduction in DALYs upon Program completion in 2020 from the integrated interventions supported by the Program is conservatively set at 0.3 percent across all NCDs. The reductions in diseases from the interventions of the project (Increased access to high-quality MCH and NCD services) took the conservative values for interventions from the Disease Control Priorities Project-2⁴¹.
- **Counterfactual Scenario for DALYs:** The baseline DALYs were calculated for the various conditions from WHO estimates for the Eastern and Central Asia region, adjusted for the population size of the project (4.27 million people) and the age structure of Croatia (from the WB HNP Statistics). These include the forward-looking projections of DALYs averted (that is, healthy life years gained) from 2013 to 2020.
- **Valuation of DALYs** used a very simple rule. Each DALY saved is valued at yearly per capita income (using a starting value of about EUR 10,000 for 2012). The Disease Control Priorities Project and Copenhagen Consensus guidelines mention three times per capita income as a still conservative estimate for the value of each DALY averted.⁴² Studies of valuation of life in the United States even utilize much higher values for a year of life that would produce more extreme results.
- **Discount Rates for DALYs:** The monetary value of future stream of health benefits (i.e. annual DALYs saved) is discounted at 3 percent (a higher rate of 6 percent is used for the sensitivity analysis), per guidelines from WHO and the Disease Control Priorities Project.⁴³
- **GDP Growth:** An annual growth rate of 1 percent in real per capita GDP is used, being more conservative than the estimates provided by the International Monetary Fund (IMF)⁴⁴.

Table 14. Benefits from DALYs averted (EUR '000s)

Discount Factor	2012-2017	2018-2020
	Benefits from DALYs averted	Benefits from DALYs averted
3%	37,518 EUR	54,987 EUR
6%	35,360 EUR	47,625 EUR

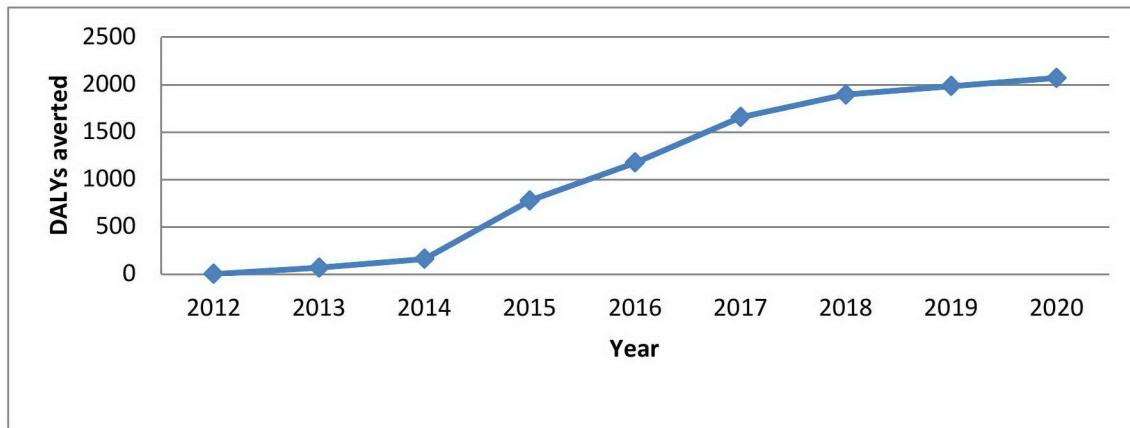
⁴¹ The Disease Control Priorities Project (DCPP) is an ongoing project that aims to determine priorities for disease control across the world, particularly in low-income countries (<http://www.dcp2.org/>)

⁴² See: D. Jamison, P. Jha, and D. Bloom, “Copenhagen Consensus 2008 Challenge Paper: Diseases,” 2008; <http://www.givewell.org/files/DWDA%202009/Stop%20TB/Copenhagen%20Consensus%20Paper-Diseases.pdf>.

⁴³ See: <http://www.dcp2.org/>.

⁴⁴ Which predicts a growth rate of 2.2% for the period 2014-2018.

Figure 3: Total DALYs averted by year compared to Europe and Central Asia counterfactual projections, baseline scenario



Expected overall benefits from the interventions

55. Finally, Table 15 presents the NPV and the estimated IRR of the whole set of interventions. The sum of costs and benefits (i.e. the NPV of the interventions) is largely positive and the estimated IRR ranges between 4.85 and 9.83 percent considering only the first Program phase 2012-2017 and between 17.38 and 24.52 percent for the full Program duration 2012-2020, depending on the inflation used, which clearly shows the positive development impact of the proposed Program.

Table 15. NPV and IRR of the entire program (EUR '000s)

Discount Factor	2012-2017		2012-2020	
	NPV	IRR	NPV	IRR
3%	26,267 EUR	9.83 %	199,926 EUR	24.52 %
6%	12,890 EUR	4.85 %	159,615 EUR	17.38 %

F. Program Technical Risks

56. The wide scope of the Government's intended health sector reforms, as articulated in the Government program 2012–2020, was identified as a key technical risk to the success of the proposed Program. To mitigate these risks, the proposed Program supports a delimited set of reforms that are the focus of the Government's Five-year Program. Hospital participation in the Ministry of Health's centralized procurement reforms is voluntary, and low participation may have jeopardized the success of this critical element in the proposed Program. This has not proven to be an important risk. So far, all but one county (Zagreb) has elected to participate in the Ministry of Health's financial consolidation efforts, which gives the Ministry financial control over hospitals in arrears. This, in turn, has resulted in a high rate of participation by hospitals.

57. A key potential risk to the proposed Program arises from the fact that full implementation of the hospital rationalization master plan requires the absorption of EU Structural Funds. The DEMSIPP supported technical assistance to develop a hospital rationalization master plan, and this will enable the Ministry of Health to develop specific proposals for funding that can be submitted to tap into EU Structural Funds. The Program itself constitutes an opportunity to help Government fulfil the ex-ante conditionalities. In the interim, however, the Ministry of Finance has expressed its commitment to support the Ministry of Health to meet funding needs.

Annex 5: Summary Fiduciary Systems Assessment

1. A Fiduciary System Assessment (FSA) was carried out in accordance with OP/BP 9.00 to evaluate the fiduciary systems pertaining to the Health System Quality and Efficiency Improvement Program for Results. The integrated fiduciary assessment comprised separate assessments of the fiduciary risks related to the Program's (i) procurement; (ii) financial management; and iii) governance. The objective of the assessment was to provide reference that could be used to monitor fiduciary system performance during the implementation of the above referenced operation, as well as to identify actions, as relevant, to enhance the performance of the systems. Findings from the assessment, as well as a review of existing analytical and diagnostic work⁴⁵, conclude that the overall fiduciary and governance framework is adequate to support the implementation of the Croatia's Health System Quality and Efficiency Improvement Program for Results. Summary table of the key risks and the corresponding mitigation actions identified are included.

2. The scope of the FSA covered the Program institutional framework, fiduciary management capacity and implementation performance, and institutions and systems responsible for governance and anti-corruption aspects within the Program. The FSA, within the context of reviewing the performance of institutions responsible for implementing and managing program expenditures, included a sample of 7 hospitals to review their fiduciary management capacity.

3. On July 1, 2013, Croatia became a full member of the European Union (EU). As part of the accession process to the EU, the country's legal and regulatory framework, systems and institutions, responsible for public financial management, including public procurement, enforcing the rule of law and combating corruption, have been assessed as having met the comprehensive requirements of the *acquis communautaire* (specifically, Chapter 32 of the *acquis communautaire*), the body of laws and directives that each member state must meet in order to be accepted as a full member of the EU.

4. The public procurement system⁴⁶ includes public contracts, contracts for contracting entities in the utilities sector and concessions with uniform legal protection. The new Public Procurement Act (PPA) became effective on January 1, 2012, and was recently amended in June 2013 to address changes in some of its provisions with regard to Croatia's accession to the European Union on July 1, 2013. It regulates the procedures for award of public contracts and framework agreements for the procurement of supplies, works or services, legal protection in relation to those procedures and the competences of the central state administration body competent for the public procurement system. Pursuant to the PPA, in 2012 the Government of the Republic of Croatia has passed all of the subordinate regulations with regard to drafting tender documents, issuing procurement notices, using common procurement vocabulary (CPV), and controlling the implementation of the PPA.

THE PROGRAM

5. The Government's reform program defines the following eight main priorities: (i) Developing a Health Information System and eHealth; (ii) Strengthening and better using human resources in health care; (iii) Strengthening management capacity in health care; (iv) Reorganizing the structure and activities of health care institutions; (v) Fostering quality in health care; (vi) Strengthening preventive activities;

⁴⁵ Various OECD SIGMA reports covering (i) public expenditure management, (ii) Public Internal Financial Control including internal controls and internal audit, (iii) external audit, and (iv) public procurement.

⁴⁶ Croatia's public procurement system is defined by the 2008 (June) Strategy for the Development of the Public Procurement System. The legislative framework for Croatia's public procurement system has been found to comply with the requirements of the *acquis communautaire*.

(vii) Preserving financial stability of health care; and (viii) Improving cooperation with other sectors and society in general. The proposed Program to be supported by the Bank would cover 5 out of the 8 priorities as defined in the Government's 2012-2020 National Health Care Strategy (the Government program), within the boundaries defined in terms of: (a) Program duration; (b) Priorities supported; (c) Institutions involved. To improve two critical areas of the health services (quality and efficiency) and considering the objectives and pillars of the CPS it was agreed with the Government that the Program would include 5 out of the 8 priorities of the 2012–2020 National Health Care Strategy that are oriented at addressing the main reform challenges facing the Croatian health sector. These challenges and the relevant activities for addressing them are the following:

6. **Priority iii** (Strengthening management capacity in health care) and **Priority iv** (Reorganizing the structure and activities of health care institutions), including: Implementing hospital master plan, Implementing hospital reforms, governance and management changes, promoting group practices for primary healthcare doctors, expanding secondary-level outpatient services, including high-resolution outpatient centers, redefining long-term health care services and palliative care.

7. **Priority v** (Fostering quality in health care) and **Priority vi** (Strengthening preventive activities), including: implementing of a hospital accreditation, implementing of HTA to selected new health technologies, building a body of clinical protocols and care pathways, detecting and proper recording of specific “sentinel events for quality”, implementing technical audits and payment mechanism to incentivize the use of clinical guidelines, using of the existing e-prescription system for quality control purposes.

8. **Priority vii** (Preserving financial stability of health care), including: further development of central procurement, rationalization of nonmedical services, strengthening the performance-linked component in payments to hospitals and outpatient services, developing the MoH capacity to develop and present proposals to be financed by EU structural funds.

Summary of Program Fiduciary Assessment

9. The Program will finance various categories of contracts, including civil works, goods and services. Most of the civil works would be rehabilitation of existing facilities and more detailed information on them will be provided as soon as the Hospital Master Plan is finalized. It is expected that civil works will take place in 2016-2017 and that they will be financed with EU structural funds. The goods contracts include medical equipment, various consumables, materials, food for hospitals.

10. Procurement under the Program will be carried out in accordance with the Croatian Public Procurement Act (PPA). There is considerable capacity within the framework of the agency for management and implementation of public procurement. Officials involved in carrying out the procurement process have a formal certification in procurement as required by the PPA. It is not expected that any of the contracts for civil works, goods and services/Technical Assistance (TA) would exceed the current OPRC review thresholds. The Bank will not be involved in the activities with regard to the development of the health information system and eHealth priority.

11. The DLI related to procurement to assure that the potential cost savings from centralized procurements are used, and that the centralized procurement is conducted in a transparent way is defined as follows:

DLI 8. Percentage of total public spending per fiscal year on medical consumables, drugs, and devices for hospital (inpatient and outpatient) services made through centralized procurement/framework contracts and disclosed on the MoH website.

12. The Program's financial management and procurement systems and institutions provide reasonable assurance that the financing under the Program is used for intended purposes, with due regard to the principles of economy, efficiency, effectiveness, transparency and accountability. Specifically, Croatia's financial management systems for the Program (planning, budgeting, accounting, internal controls, funds flow, financial reporting, and auditing arrangements) provide a reasonable assurance on the appropriate use of Program funds and safeguarding of its assets. Furthermore, the Program's financial management systems perform at a satisfactory level to support the achievement of Program results (see Technical Assessment).

ASSESSMENT OF PROGRAM EXPENDITURE FRAMEWORK

13. The types of expenditures and their indicative estimated costs under the Government's program 2012-2020 are indicated in the tables below. The Program expenditures will be managed by the MoH (administrative budget), and the MoH Central Procurement for Health executed by selected hospitals.

14. With overall health spending at 7.8 percent of GDP, Croatia is near the top of the list compared to new EU members, and spends significantly more than countries with similar GDP per capita in the region. At 17.7 percent, the health sector's share of public expenditures (about EUR 3.1 B) is higher than the 15.6 percent average for all EU countries. In this fiscally constrained environment, the Croatian health system faces a mismatch among available public resources, growing expenditures, and increasing needs.

15. Health financing is organized according to social health insurance principles. A single fund, the Croatian Institute for Health Insurance (HZZO), covers the entire population (about 4.3 million beneficiaries comprised of: 1.52 million active workers, 1.05 million pensioners, 1.15 million family members, and 0.63 million individuals covered by special programs).

16. The bulk of HZZO's revenue comes from contributions collected from the population augmented by transfers from the Government for "mandatory activities." The following categories of the population are expected to contribute to the fund: active workers (34 percent), active farmers (0.8 percent), and pensioners (24.1 percent). As they are not contributors in their own rights, dependents of these categories are automatically covered (26.4 percent). Formal exemptions include the unemployed, the 100 percent disabled, and organ and blood donors, which combined represent 14.6 percent of the insured. People working in the grey economy do not contribute, but receive coverage. There is a formal and explicit mechanism by which the state contributes on behalf of exempted categories.

17. Contributions to the compulsory health insurance scheme are paid to the treasury and form part of the state budget from which the HZZO receives funds to cover mandatory health insurance. The compulsory health insurance scheme is not entirely dependent on contributions from salaries but also receives central government transfers.

18. The proposed Program supports 5 out of the 8 Government program defined priorities, and the Bank's contributions will represent 41 percent of the total Program estimated cost of EUR 219 million or 18 percent of the total Government program. Expenditure analysis, financial sustainability of the Program, and spending efficiency analysis are discussed in detail in Annex 4 (Technical Assessment).

Table 16. Government program 2012–2020 (EUR Million)

	2012-2017	2018-2020	2012-2020
1. Developing a Health Information System and eHealth	30	15	45
2. Strengthening and better using human resources in health care	7	5	12
3. Strengthening management capacity in health care	10	4	14
4. Reorganizing the structure and activities of health care institutions	125	135	260
5. Fostering quality in health care	25	15	40
6. Strengthening preventive activities	14	10	24
7. Preserving financial stability of health care	6	4	10
8. Improving cooperation with other sectors and society in general	2	2	4
Sub-total Strategies 3 , 4, 5, 6 and 7 between 2012-2017	180		
Total	219	190	409

Table 17. Program Financing

Source of Financing	Amount	
	EUR Million	US\$ Million Equivalent
GoC*	105.0	144.8
IBRD	75.0	103.5
Total Program Financing	180.0	248.3

* GoC may seek EU funds to partially finance its program

Table 18. Estimated Profile of Program Expenditures

	EUR Million	US\$ Million Equivalent
Civil Works	95.0	131.0
Medical Equipment and Goods	25.0	34.5
Technical Assistance	4.0	5.5
Human Resources	8.0	11.0
Services and Operational Cost	48.0	66.3
Total	180.0	248.3

SUMMARY OF FIDUCIARY RISKS AND MITIGATION ACTIONS

19. Based on the findings of FSA, the overall fiduciary risk is Moderate.
20. Although the experience with the joint procurement until now could be considered as quite positive, there are areas which need enhancement and further improvement. These relate mainly to the time needed to prepare technical specifications for medical equipment, consumables, materials and pharmaceuticals for hospitals; the lack of contract administration and monitoring system; the need for further capacity building in procurement management, and development and application of e-procurement.
21. The key institutions (MoH, HZZO, Hospitals) have functioning financial management information systems, adequate financial and accounting staff to plan budgets, execute and record transactions and produce in-year and year-end financial reports. In each of these institutions/groups, an internal control framework is evident, with clear rules and procedures (for the segregation of and articulation of individual duties and responsibilities for key financial management functions). The Fiscal Responsibility Act⁴⁷ requires that the head of each budget institution prepares and signs a statement (as well as answers a questionnaire provided by MoF) attesting to the legal, functional and purposeful use of budget resources and the efficient and effective functioning of financial management and controls for the funds provided to the institution through the state budget.
22. There are however three key areas of risk: (i) the impact of reduction in HZZO budget allocations that finance the reimbursements to hospitals; (ii) the inability of hospitals to manage or renegotiate the terms of liabilities; and (iii) the lack of adequately functioning internal audits for hospitals, which are required according to the law to have such units established.

No	Risk Type	Risk Rating	Risk Description	Mitigation Actions
1	Ineffective planning to incorporate mid-year changes (reductions) to budget allocations	Substantial	HZZO budget allocations are reduced mid-year thereby reducing the amounts reimbursed to hospitals. Hospitals are not informed in a timely manner of these reductions, thereby creating serious financial and fiscal constraints.	The mid-year budget revisions should be immediately shared with all involved budget institutions, particularly hospitals. This will allow hospitals to make in-year adjustments to financial plans and budgets in an effort to limit entering into new obligations, which may not be adequately supported through the original budget plan.
2	Long time needed for preparing technical specifications for medical equipment procured by the Ministry of Health	Moderate	<p>The process of preparation of technical specifications is lengthy. This results in delays for launching tenders.</p> <p>There is a trend of receiving complaints with regard to technical specifications; that they are restrictive and directed to a specific manufacturer. This delays the procurement and contract award process.</p>	<p>Preparation and implementation of a realistic plan for preparation of technical specifications and tender documents well in advance.</p> <p>Use of contemporary methods and techniques for preparation of non-restrictive, well-defined technical specifications based on relevant characteristics and/or performance requirements in order to promote broadest possible competition.</p>

⁴⁷ Official Gazette 139/10.

No	Risk Type	Risk Rating	Risk Description	Mitigation Actions
3	Long time needed for preparing technical specifications for consumables, materials and pharmaceuticals for hospitals subject to joint procurement	Moderate	<p>The process is quite lengthy, which delays the launching of tenders.</p> <p>There are no standards and catalogues for commonly used consumables and materials; in many cases there are repetitive requests for the same item, but defined in different ways.</p> <p>Although technical specifications are drawn up on the basis of numerous consultations with various institutions and representatives of the private sector, the majority of complaints are related to technical specifications: that they are restrictive and directed to a specific manufacturer. This delays the tender process and, in some cases, results in a need for cancellation and repetition of the tendering process.</p>	<p>Use of contemporary methods and techniques for preparation of non-restrictive, well-defined technical specifications based on relevant characteristics and/or performance requirements in order to promote broadest possible competition.</p> <p>Development of common standards in a catalogue, as may be relevant, which would define items and categories of items, which are subject to joint procurement.</p> <p>To enhance the procurement process of pharmaceuticals by better defining their specifications and groups/lots in tender documents.</p>
4	Lack of contract administration and monitoring system	Moderate	<p>There is no adequate information available with regard to contract administration and monitoring of implementation.</p>	<p>Development of an adequate contract administration and monitoring system, including defining the process and capacity needed, the evidence of contract performance with regard to time, quality and cost, inspection of quality of the goods and services delivered, timeliness of payment and effective contractual dispute resolution, as applicable, and enforcement of contractual remedies.</p> <p>Ensuring consistency of actual status and information published on the MoH website and of the Directorate for Public Procurement System.</p>
5	Inefficient practices to limit liabilities as well as accumulation of arrears and receivables	Substantial	<p>Ineffective practices in collecting co-payments due from patients resulting in bad debts.</p> <p>Hospitals are unable to manage liabilities (arising from contracts) including renegotiating terms and conditions of payment.</p>	<p>The MoF-MoH hospital financial rehabilitation plan should include new measures to improve hospitals ability for the management of obligations and liabilities (consistent with the PPA) and to improve the effectiveness of revenue management.</p> <p>The HZZO should immediately update reimbursement allocations and inform hospitals of any changes to the DRG financing system,</p>

No	Risk Type	Risk Rating	Risk Description	Mitigation Actions
				particularly in the event of downward budget revisions.
6	Capacity building	Moderate	<p>The PPA required that staff involved in procurement management has formal certification.</p> <p>Hospitals which meet the threshold, as defined by the Law on Internal Audit, should establish adequate functioning internal audit units with trained staff.</p>	<p>Ensure the continuous and sustainable development of the capacity of staff in procurement and contract management, both in the MoH and relevant hospitals, responsible for joint procurement.</p> <p>Program's hospitals: over a five-year implementation period, 20 percent of hospitals each year will have to have an effectively functioning internal audit department confirmed.</p>
7	E-Procurement is not yet implemented in Croatia.	Moderate	<p>The institutions could from e-procurement by having a more transparent, quicker and more efficient public procurement process.</p>	<p>To support the Government's Strategy 2013-2016 for the development of e-Procurement in the Republic of Croatia, to pursue options for introducing e-procurement within the scope, limits and timeline of the above referenced Strategy.</p> <p>Initially to assess the options of introducing e-Procurement (e-catalogue, e-marketplace etc.) for smaller value contracts subject to joint procurement and which are below the thresholds of the PPA.</p>

SUMMARY OF PROGRAM FIDUCIARY SYSTEMS PERFORMANCE

PROGRAM PLANNING AND BUDGETING

23. Croatia scored well on the Open Budget Index Survey (Croatia's Open Budget Index score is 61 out of 100⁴⁸). According to the calendar set out in the Budget Act, the MoF drafts at the end of May 2013 the Economic and Fiscal Policy Guidelines. Guidelines are based on the Strategy of Government programs for the three-year period ahead, which get adopted by the government. In recent years, the adoption of the guidelines has moved to the end of July or beginning of August. All key indicators provided by the guidelines (including the limits set by the government) are then transferred into instructions for drafting the state budget. When receiving those instructions, budgetary users prepare their proposals of financial plans, within which they autonomously decide on the allocation of funds to programs, activities, and projects in their jurisdiction. In preparing the plan for their programs, program activities must comply with the limits set for the overall level of spending. In practice, ministries usually are not satisfied with the allocated limits. They may ask the government to change the limit but with an explanation provided, which the government may accept on the basis of its reasoning. By October 15, the MoF drafts the state budget for the fiscal year and the projection for the next two years and submits these to the government. The government determines the proposed budget and projections by November 15, and submits them to the Parliament for approval. By the end of the year the Parliament adopts the annual budget and projections for the next two years.

24. Revenue and expenditures are reported in compliance with the following budget classifications: 1) organizational, 2) economic, 3) functional, 4) locational (central and subnational government), 5) programmatic, 6) sources of funding⁴⁹. There are two key medium-term strategic documents which define government structural reforms – the PEP (Pre-Accession Economic Programme) and the Government's program. Croatia began publishing a Citizen's Budget since 2012.⁵⁰

25. The hospital's budget is prepared annually in current year's October month for the next year. At the same time a projection is prepared also for the subsequent 2 years. Such plans are approved by the hospital's director (or financial rehabilitation manager if the hospital is under such temporary management set-up). The Management board (or Financial Rehabilitation board) approves the budget by the end of the budget preparation year. During the year, the budgets are revised a few times depending on the requirements for revisions.

26. **Procurement planning.** Funds for the public procurement contracts are secured from the state budget. An annual procurement plan is prepared on the basis of the annual budget of MoH. The MoH issues a Decision with which the annual procurement plan is approved. In preparing the procurement plan, the Ministry collects information with regard to the needs of the various departments within the Ministry of Health and also from the various health institutions (state and county hospitals, primary health care departments etc.). It contains information in line with the requirements of the Public Procurement Act, i.e. including the subject matter of procurement and its reference number, estimated value, type of public procurement procedure, including the procedure for awarding a public service contract, as relevant, information if the public procurement procedure would result in a public procurement contract or a framework agreement, planned commencement of the procedure and the planned duration of the public procurement contract or the framework agreement. The procurement plan is published on the website of

⁴⁸ <http://internationalbudget.org/wp-content/uploads/OBI2012-CroatiaCS-English.pdf>.

⁴⁹ Law on Budget (Official Gazette 87/08.

⁵⁰ <http://www.mfin.hr/adminmax/docs/IZVRSENJE%20DRZAVNOG%20PRORACUNA%20ZA%20PRVO%20POLUGODISTE%202013..pdf>.

the Ministry of Health upon issuance of the Decision and sent to the Directorate of Public Procurement Systems of the Ministry of Economy. All revisions, changes, additions in the procurement plan are approved by the Minister of Health and published as indicated above.

PROGRAM PROCUREMENT

27. The most commonly used procurement procedure for procurement of goods, works and services is the open tendering procedure. The rationale for selection of a public procurement procedure is in accordance with the nature, scope and value of the public procurement contract, as well as in accordance with the rationale for justification of each public procedure as regulated in the Act.

28. **Tender documents.** The tender documents⁵¹, including technical specifications are prepared in-house. The technical experts that have prepared the technical specifications usually participate later on in the evaluation process. The experts participating in the preparation of the tender documents are appointed with a Decision of the Minister of Health, and the list of these experts is published on the Ministry's website. While there are no standard tender documents, the documents are drafted in accordance with the requirements defined in the Regulation on the methodology for drafting and handling tender documents and tenders (see the FSA for further detail). The tender documents, including the technical specification and the procurement notice are uploaded on the *Narodne Novine* platform. The official newspaper where all procurement notices and tender documents are published is also available online, as required by the PPA. All interested prospective bidders could see this information and could download the documents free of charge.

29. **Opening and evaluation of bids.** Tenders are opened in public and minutes of public opening are prepared in a form and content as defined in the above referenced Regulation. A copy of the minutes is made available to all authorized representatives of the tenderers. Evaluation is done in accordance with the evaluation and qualification criteria in the tender documents and is carried out by an evaluation committee.

30. **Contract administration.** There is no formal data with regard to contracts administration. For facilitating the contract administration and its monitoring, it is recommended that an adequate contract administration and monitoring system be defined, including defining the process and capacity needed, the evidence of contract performance with regard to time, quality and cost, inspection of quality of the goods and services delivered, timeliness of payment and effective contractual dispute resolution, as applicable, and enforcement of contractual remedies.

31. **Complaints Handling Mechanism.** The existing PPA elaborates on the legal protection and appeals mechanism, which are respected by the Ministry of Health and the relevant hospitals central bodies. The independent state body responsible for reviewing appeals in connection with public procurement procedures, concession award procedures and procedures for selection of private partners in public-private partnership projects is the State Commission for Supervision of Public Procurement Procedures. Therefore, all appeals with regard to a public procurement procedure are submitted to the State Commission. The PPA defines the time limits for lodging an appeal. Depending on the contract value, an appeal should be submitted within a period of 10 days (for higher value contracts) or 5 days (for smaller value contracts) from the date of the respective step of the procedures, and as may be relevant. More specifically, an appeal may be submitted within the above referenced time limits from the date of (i) the publication of contract notice relating to the content of the contract notice and tender documents, and supplementary documents, if any; (ii) the publication of modifications to the tender documents relating to

⁵¹ For the purpose of this report, tender and bidding documents and tender and bid have the same meaning.

the content of the modification of the tender documents; (iii) the opening of tenders relating to the procedures for opening of tenders; (iv) the receipt of the award decision or cancellation decision relating to the procedure of examination, evaluation and selection of tenders, of the reasons for cancellation. Any appellant, who fails to file an appeal at a specific stage of the open procedure in accordance with the prescribed time line, loses the right to appeal with regard to the previous stage in a later stage of the procedure. The PPA provides the amounts of the fees for initiating the appealing procedure. After an appeal is received, the contracting authority is required to submit all supporting documents within a 5-day term.

32. The decisions of the Commission are published on its website, on which the information is updated on a daily basis. The time for resolution of the appeals varies depending on the nature of the complaint and it, sometimes, may take a month or even longer. The most common types of appeals with regard to the public procurement procedures carried out by the Ministry of Health and the hospitals are with regard to the technical specifications or the decision on contract award. The fiduciary assessment report provides information on the number and type of appeals/complaints submitted during the 2012 and 2013.

33. **Debarment System.** There is no formal debarment system in the country, however, the proposed operation shall be subject to the Bank's 2011 (revised) Anti-Corruption Guidelines and will not enable services of firms and individuals debarred by the Bank. The list of such debarred firms and individuals can be found at the following website: <http://www.worldbank.org/html/opr/procure/debarr.html>.

PROGRAM ACCOUNTING AND FINANCIAL REPORTING

34. The Ministry of Health uses a modified accrual basis where revenues are recorded on a cash basis and expenditures recognized when incurred. Accounting in hospitals is maintained following principles determined in the Rulebook for budget accounting and budget plan⁵² (Official Gazette No. 31/11), and this enables hospitals to prepare various different reports throughout the year. The accounting in hospitals is the same as for any other budget user as revenues and expenditures are recognized following modified accruals basis of accounting. For the health sector, the modified accruals accounting policies includes the following:

- No depreciation or amortization – these are not accounted for or calculated
- No recognition of revenue and expenses related to changes in value of non-financial assets
- Revenue is recognized in the period when it has become available to the hospital, given that it can be measured
- Expenses are recognized when incurred in the reporting period to which they relate, independent from the fact in which period the payment took place
- Expenses for consumption of short-term financial property are recognized when purchased (except in health sector such expenses are recognized at the point of actual consumption or sales)
- For donations of non-financial assets, revenue and expenses are recognized according to their estimated value

35. Budget users, whose value of property and annual revenue does not exceed HRK 100,000 (approximately US\$18,000) are not required to prepare and submit financial reports or apply a financial plan. As a minimum such budget users are required to maintain petty cash book and book of revenue and

⁵² http://www.mfin.hr/adminmax/docs/Pravilnika_o_proracunskom_racunovodstvu_i_Racunskom_planu.pdf

expenses. The decision to exempt a lower-tier budget user from the general requirements is determined by the supervising ministry or central (higher) budgetary authority.

36. Monthly reports are prepared by the 10th of the month for the previous month and such reports are prepared and submitted to the HZZO (the Croatian Institute for Health Insurance). The reports contain the following information: revenue and expenses, amounts invoiced in excess of limits assigned by the HZZO, receivables by days, number and structure of employees, balance of the transaction account, expenses for expensive medication and transplantation, number of practitioners and gross salary expenses of the practitioners.

37. Quarterly reports are submitted to the FINA (the payment agent of the government and linked to the Treasury). The quarterly reports include data and information on revenue and expenses for the period, liabilities, receivables, inventory balances, transaction account balance, number and structure of employees. Semi-annual reports are submitted to HZZO, MoH and FINA and include information on revenue and expenses of the budget user. Annual reports produced by hospitals include a Balance Sheet, report on income and expenditures, report on changes in value and extent of assets and liabilities, and these reports are submitted to the MoH, HZZO and FINA.

38. The details on reporting requirements of the hospitals are published in the instructions on application of FM system and controls in health institutions in the process on financial rehabilitation whose funders are local or regional counties whose rights are currently resting. The instructions have been issued by the MoF and published on July 1, 2013.⁵³ The mentioned instructions include reporting requirements for health institutions outside of the financial rehabilitation plan.

39. Most of the hospitals have an automated accounting system. However reports for MoH, HZZO and FINA are produced manually depending on requirements determined by the government's decisions. Some general statements such as trial balances and accounts balances can be prepared automatically from the system but all other reports are normally produced manually.

40. The accounting and financial reporting systems in the MoH, HZZO and at the level of hospitals were found to perform adequately in managing expenditures, including transfers to lower-tier budget users (i.e., from HZZO to hospitals). However, hospital inventory systems are not connected to the general ledger - most hospitals have a separate system for inventory management. This system deficiency compromises the quality of information for management decision-making and presents a risk of transferring inaccurate data into the general ledger. Ongoing improvements in the effectiveness and coverage of hospitals by internal audit will help to mitigate this risk.

41. Similarly, salaries are and will continue to be accounted for in a separate system. Recently, the government has decided to reform the manner in which all public sector salaries are managed and accounted for by managing this through a new centralized system. Salary payments will be executed by FINA and all budget users will have the same software where all information on all public sector employees will be captured and maintained. The assessment of such system was not part of this fiduciary assessment and, therefore, the team was not able to assess it. The system is only now being piloted and has not yet fully implemented by all budget users. There were several complaints about the functionality and comprehensiveness of the system but it was not possible to make a conclusion on actual issues and risks involved in this reform initiative. Improved monitoring by internal audit will help to pinpoint emerging issues and elicit corrective action.

⁵³ [http://www.mfin.hr/adminmax/docs/naputak%20ustanovama%20u%20zdravstvu%20u%20sanaciji%20\(osnivaci%20JLPRS\).pdf](http://www.mfin.hr/adminmax/docs/naputak%20ustanovama%20u%20zdravstvu%20u%20sanaciji%20(osnivaci%20JLPRS).pdf).

HOSPITALS ACTING AS CENTRAL BODIES FOR PUBLIC PROCUREMENT

42. The responsibility for coordination and monitoring of the joint procurement carried out by the relevant hospitals lies with the Sector for European Funds, Structural Reforms and International Projects. It comprises 13 people, of which 5 have certification in public procurement. The Sector is within the Health Protection Directorate in the Ministry of Health. It has been created recently with the current reorganization that took place at the Ministry of Health. The Sector is also responsible for the Service for the Implementation of International Loans and Structural Reforms and Service for Pre-Accession and Structural Funds.

43. The decision on joint procurement was adopted by the Ministry of Health as part of the three year plan of the Government for rehabilitation of hospitals, to achieve the most efficient public procurement and economical spending of its financial resources, as well as to achieve best value for money. It is in line with the provisions of the Public Procurement Act (Official Gazette, no.90/2011, 83/2013, 143/2013, 13/2013) and defines the institutions which will be responsible to conduct the joint procurement for selected procurement categories, as well as the institutions which are obliged to implement joint procurement through central bodies for public procurement.

The *Decision for compulsory implementation of joint procurement through the central bodies for public procurement/public institutions whose founder is the Republic of Croatia, for conclusion of framework agreements for specific subjects of procurement (public procurement categories)* was issued by the Minister of Health on May 31, 2012.⁵⁴ Initially there were 9 state owned hospitals and the Croatian Institute for Health Insurance assigned to implement joint procurement for various procurement categories through the above Decision of the Minister of Health. While centralized procurement is mandatory for the state owned hospitals, it is left to the local governments/counties to decide how to organize the public procurement for the county and general hospitals. County hospitals may participate in the centralized procurement and some of them do participate.

44. Those institutions which are bound to participate in the joint procurement pursuant to the Decision are not permitted to conduct individual procurement of goods and services as defined in the Decision. As an exception, they may proceed with a procurement process only after obtaining the consent from the Hospital Rehabilitation Council and submitted for information to the Ministry of Health. The hospitals responsible for the implementation of the joint procurement have the status of central procurement bodies, as defined in Article 8 of the PPA. They have the status of authorized clients and before drafting the tender documents, they are obliged to collect all the relevant information for implementation of the joint procurement.

45. The table below provides the names of the hospitals that were initially assigned the role of central procurement bodies authorized to perform joint procurement and the relevant procurement categories.

⁵⁴ “The Decision” refers to the compulsory implementation of joint procurement through the central bodies for public procurement/public institutions whose founder is the Republic of Croatia and for conclusion of framework agreements for specific procurement (public procurement categories).

No.	Central Body for Public Procurement	Procurement items
1.	Ministry of Health	Medical equipment, other goods, civil works, consultant services, non-consultant services.
2.	Zagreb Clinical Hospital Center	All medication included on the HZZO list which have generic parallels, disposable and implant materials for ophthalmology and neurosurgery, cardio electro-stimulators, laparoscopy instruments and disposable material for electro surgery, disposal materials for endoscopy and endoscopy apparatus, materials, equipment and instruments for infusions, biopsies, injections, administration of cytostatic.
3.	Rijeka Clinical Hospital Center	Laboratory diagnostics, microbiology, contrast dyes, equipment for implanting and testing cardio electro-stimulators, disposable materials for medically assisted procreation, bags and filters for blood.
4.	Split Clinical Hospital Center	Food products, materials for existing ECG monitors and defibrillators and other equipment for monitoring cardio function, glass, plastic, metal and wooden medical disposal materials, disposal surgical materials.
5.	Dubrava Clinical Hospital Center	Implant and disposable materials for cardio-surgery, implant and disposable materials for vascular surgery, implant and disposable materials for plastic surgery, implant and disposable materials for gastroenterology, disposable materials for anesthesiology, disposable materials for sterilization, disposable materials for transfusiology, disposable materials for hemodialysis, disposable materials for dentistry, disposable materials for extra-corporal circulation.
6.	Mercur Clinical Hospital	Medical gases.
7.	Sisters of Mercy Clinical Hospital Center	Implant and disposable materials for intervention radiology and intervention cardiology, disposable materials for nuclear medicine, other medical disposable materials (bandages, needles, injections, plaster, infusion systems, gloves, catheters, drains).
8.	Dr. Fran Mihaljevic Clinic for Infectious Diseases	Fuel, disposable sanitary materials.
9.	Lovran Orthopedic Hospital	Implant and disposable materials for orthopedics and trauma surgery, apparatus for fractures, screws, fixation plates, systems for implanting plates and screws.
10.	Croatian Institute for Health Insurance	Mail, electricity, telephones (landlines and mobile), internet, office materials (including toners and ink).
11.	Osijek Clinical Hospital Center	Mail, laboratory diagnostics and microbiology*.

* This hospital was assigned initially through the Decision of the Minister of Health dated May 31, 2012 to carry out joint procurement for the referenced procurement categories, however, due to not very successful implementation it was removed from the list through the Decision dated March 4, 2013.

46. On July 18, 2013, the MoH issued a Decision to expand the list of hospitals participating in the joint procurement and expanded the list of procurement items to be included in this procedure. A list of updated procurement items is included below.

No	Central body for Public Procurement	Procurement items)
1	Clinical Hospital Centre Zagreb	laparoscopic instruments and supplies for electrosurgery supplies for endoscopy and endoscopic devices supplies, devices and instruments for infusion, biopsy, puncture, for giving cytostatic laboratory diagnostics and microbiology and laboratory reagents
2	Clinical Hospital Centre Rijeka	contrast agents accessories for installation and testing of pacemakers supplies for medical fertilization - Human Reproduction bags and filters for blood
3	Clinical Hospital Centre "Sestre Milosrdnice"	surgical Instruments probes and cannulas diagnostic agents, solvents, chemicals surgical sewing material
4	Clinical Hospital Centre Split	material for existing ECG monitors and defibrillators and other equipment to monitor heart functions glass, plastic, metal and wooden medical supplies disposable operating supplies
5	Clinica Hospital Dubrava	material acquisition, closure of wounds and stop bleeding supplies, devices and instruments for breathing and resuscitation
6	Hospital for Infectious Diseases "Dr. Fran Mihaljevic "	medical supplies
7	Clinica Hospital Dubrava	supplies for dentistry supplies for extracorporeal circulation

47. As part of the joint procurement and its initiation in May 2012, 45 tenders have been launched with an estimated value of HRK 2,300,000.00 including VAT. As of September 2013, 32 framework agreements were concluded at the actual value of HRK 1,646,223,443.73 including VAT. The savings achieved based on the current status was about 27% which is seen as a considerable achievement. Additional data can be found in the full FSA report.

48. **Procurement planning.** The hospitals which are obliged to apply the Decision, sign an Agreement which authorizes the central body for public procurement to implement the joint public procurement and to conclude framework agreements. The framework agreements are concluded with one supplier for a period of two years. The Head of each public institution authorized to conduct joint procurement as the central body for public procurement, appoints authorized representatives to prepare tender documents, including technical specifications. The list with the names of the authorized representatives is sent to the Ministry of Health and is published on its website. Budget resources are made available by each institution and are included in their financial plan for the year. The central bodies for public procurement are obliged to collect data with regard to the needs of each hospital, to draw technical specifications, to make consultations with the relevant institutions. Each hospital, signatory to the Agreement, has to provide to the central procurement body, authorized to implement joint procurement for a specific procurement category, information with regard to the items, manufacturer, quantities used, and unit prices and financial resources spent in the last three years, i.e. 2009, 2010, 2011. In addition, hospitals/public institutions for which the joint procurement is conducted have to provide

information on their future needs for a period of two years. The central procurement body draws up a “Table of Needs” covering two years. It should be submitted to the Ministry of health for approval. The procurement planning is based on the above referenced information.

49. ***Preparation of tender documents and technical specifications.*** Hospitals have their own systems to monitor their usage of goods and materials. While each hospital operates an inventory monitoring system, this system is not connected to the hospital’s general ledger or accounting system. The persons involved in the preparation of the specifications are medical doctors and other various experts, depending on the material(s) to be tendered. It is required by the Decision that the technical specifications for each procurement article is drawn in a way that would allow the products of at least three different manufacturers to participate and compete. The preparation of technical specifications and the tender documents is a lengthy process and often takes several months to accumulate basic information, as it involves numerous consultations with the public institutions for which the joint procurement is conducted, with the business community, and a consultative group comprising various ministries and institutions. In addition to the time allowed for review and consultations, the initial collection of information on the needs of each institution and the definition of the items needed takes a long time.

50. There are no common standards for defining the procurement categories and, in many cases, it appears that different institutions define the same item in different ways. Consolidating and aligning the definitions of the procurement items is an issue, and provokes numerous complaints by potential tenderers, as well as in a couple of cases it required cancellation of the tendering procedure and revision of the technical specifications and tender documents. This issue is relevant in procurement of food products, textile items, various consumables and even generic medicines.

51. The MoH publishes the first draft of the technical specifications with the tender documents on its website for comments, allowing for free access to this information to any party concerned, including prospective tenderers, citizens, other interested institution etc. The time for discussion and comments is three weeks to a month. All comments received are delivered to the relevant central body responsible for the specific joint procurement. After all comments are addressed the final document is presented for review and approval by a commission, set up by the Ministry of Health. The commission comprises various institutions, including Ministry of Regional Development and EU Funds, Ministry of Economy, Ministry of Finance, Ministry of Interior, State Attorney's Office of Republic of Croatia. Central Procurement Office, Croatian Competition Agency. . Within 5 days after the approval of the tender documents by the Ministry of Health, the tender procedure is launched.

52. ***Procurement process, procedures, opening, evaluation and award.*** The commonly used procurement procedures for the purpose of the joint procurement are the open tendering procedure as defined in the PPA. In exceptional circumstances and with justification in accordance with the PPA, the negotiated procedure with prior publication is applied. As noted before, there are no standard bidding documents and each hospital, responsible for the joint procurement drafts its own bidding documents in accordance with the requirements defined in the Regulation on the methodology for drafting and handling tender documents and tenders. The bidding documents, including the technical specification and the procurement notice are published and uploaded on the Narodne Novine platform. They could be downloaded free of charge by interested tenderers. Although the tender documents are published electronically, the bids are submitted on paper. The time for preparation of bids is between 40 and 110 days, depending very much on the value, nature, complexity of the contract and the complaints received.

53. The bidding documents define the terms and conditions of the respective tender, and they include the qualification requirements for the bidders as defined in the PPA, the evaluation criteria, and a contract form. The tenders are opened publicly and the required information is recorded in minutes in accordance

with the procedure defined the Regulation on the methodology for drawing up and handling tender documents and tenders. After the bids are reviewed for their technical merits, they are compared by price and the contract is awarded to the bidder who meets the qualification and technical requirements and offered the lowest price. In average the evaluation process takes between 60 and 90 days, but it could take even more, in cases where there are more groups of items included in one tender. Once the decision to award the contract is finalized (i.e. after the obligatory standstill period), the central body for central procurement shall conclude a framework agreement for two years.

54. The framework agreement is sent to the public institutions, and they, immediately after receipt of the framework agreement, conclude individual contracts for the specific procurement categories relevant for them. The public institutions are obliged to submit to the MoH information on the individual contracts concluded, including information on savings achieved on an annual basis (through analysing and comparing against the results of the preceding calendar year). In case when any of the institutions has previously signed a contract for a specific procurement category for a lower unit price than the unit price stated in the framework agreement, the institution is obliged to report to the Ministry of Health and keep the specific arrangement.

55. There are no standard forms for framework agreement and contract; however, the PPA and the Regulation on the methodology for drawing up and handling tender documents and tenders provide very clear instructions on the mandatory information which should be included. In addition, the MoH instructs the supplier to submit a performance guarantee for the framework agreement which is usually up to 5 percent of the value of the contract in addition to an advance payment and performance guarantee for each contract to be entered with the relevant hospitals.

PROGRAM TREASURY MANAGEMENT AND FUNDS FLOW

56. For the MoH and Centralized Procurement (health sector), budget resources are planned in accordance with the national budget framework and policies. Budget resources are made available to the MoH which is responsible to manage its expenditures in accordance with the limits and ceilings imposed by the MoF. While only the MoF and Treasury are operating within the government's central SAP system, the MoH operates its own budget management system, which is connected through an interface to the Treasury and FINA. It is through this interface that the MoH is able to issue payment orders which are then executed (as long as there is budget availability within the ceiling) by FINA. There are no separate bank accounts for the MoH as it falls under the Single Treasury Account of the government.

57. The HZZO receives its budget through MoH with payments remitted through the treasury single account. The budget for HZZO is generated through (tax) collections on insurance premia and is allocated to reimburse hospitals for medical services provided as defined under the health sector's DRG system (about 89 percent), to support allowances as defined by law for sick and health-related administrative leave (about 8-9 percent), and to support the HZZO's administrative functions (less than 2 percent).

58. Each hospital has its own independent treasury management and specific funds flow. Each hospital has its own transaction account opened in a commercial bank. The majority of hospitals' revenue is generated from a contractual relationship with HZZO. Hospitals' other revenue is generated from other sources, such as property lease, apartment accommodation of patients who pay directly to the hospital etc. Additionally, budget resources are transferred to hospitals for the implementation and execution of centralized procurement. Only the select hospitals which have been identified and included in the Decision of the Minister of Health are eligible to receive these budget transfers.

59. The hospitals should invoice their services to HZZO fund no later than 5 days upon rendered medical service. The invoices are sent in a digitalized form. Also, HZZO assigns monthly limits for all hospitals and reimburses the invoiced services on a monthly basis. Usually, if the hospitals invoice to HZZO amounts above the monthly limits, such excess amounts are not being reimbursed by the HZZO. Until 2010 hospitals' management boards used to write off the excess receivables towards HZZO or account for it off balance sheet, after 2010 no write offs are made any more but the receivables towards HZZO are significant (example of Dubrava hospital: 2010, 2011 and 2012 HRK 86 million) – that in turn results in a very poor financial position of the hospitals, including the risk of hospitals accumulating arrears (withholding payment to their suppliers because of liquidity issues). After the last hospital financial rehabilitation, HZZO has introduced changes in DRG pricing after which all prices for all types of services provided by the hospitals have been decreased by nearly 30 percent. What is currently happening is that with occupancy rate of close to 100 percent, hospitals are unable to reach their monthly limits; they also collect even less funds from HZZO. This in turn has resulted in increased arrears in hospitals (reported by several hospitals visited).

60. It was observed that in almost all hospitals liabilities (payables to private sector suppliers, vendors and contractors) payments are not settled in timely manner. Liabilities should be paid in due time, i.e. in compliance with the relevant legislation (Law on liabilities payment dates, Official Gazette 125/11). The legislation has determined that all contracted liabilities should be paid within 30 days from the receipt of an invoice or similar payment request document if not specified in the contract. Otherwise, the parties may contract up to 60 days payment deadline. The liabilities due dates cannot be longer than 60 days (Article 3, line 2, OG 125/11). Almost all hospitals visited are not respecting the payment deadlines specified in the contracts with their suppliers. Therefore, they are a constant risk of being charged penalty interest or even cancellation of the contract.

61. The total revenue of the HZZO is compromised by the revenues from the state budget, from special regulations (Complementary Health Insurance, Additional health insurance and Private Health Insurance), from financial assets (positive exchange rate differences), from services rendered (leases), and from other financial assets and liabilities.

INTERNAL CONTROLS AND INTERNAL AUDIT

62. Republic of Croatia, as a full EU member, is part of Public Internal Financial Control (PIFC) agenda. It has established a Central Harmonisation Unit (CHU) in-charge for PIFC coordination, well established Laws and regulation in this area (Financial management and control as well as Internal Audit). Internal controls are well established in MoH and HZZO. There are clear written procedures for authorisations, segregation of duties, reconciliations etc. covering expenditure and financial management as well as procurement responsibilities.

63. The Law on Internal Audit for Public Sector⁵⁵ (December 19, 2006) determines how internal audit units should be established, the requirements to be met by the internal auditors, obligations of the head of the internal audit department or group, and the independence of both the internal audit department and the head of internal audit. The law further defines the standards of internal audit (and defines compliance with the standards) and provides the regulatory framework for the planning and execution of internal audits, particularly for projects financed under EU programs (structural funds).

64. Internal audit in MoH is more advanced. The MoH's internal audit department comprises of 4 staff who are certified internal auditors. The internal audit department conducts regular audits which

⁵⁵ <http://www.mfin.hr/adminmax/docs/Zakon%20o%20sustavu%20unutarnjih%20financijskih%20kontrola.pdf>

review IPA funding (provided by the EU), among other areas of audit coverage. The internal audit department prepares a regular audit plan – 5 audits were planned for 2012 and 5 had been carried out to completion and were found to have complied with internal audit standards.

65. By contrast, internal audit in hospitals is still at a very embryonic stage. Larger, more developed hospitals have already established internal audit departments with staff assigned to perform this job, while other hospitals are in the phase of establishing internal audit department. As per the new Internal Audit Rulebook for public sector users (Official Gazette as of July 15, 2013), each hospital will have to have an internal audit department if has over 50 employees and if its annual expenses and/or expenditure exceed HRK 80 million. As per the IA rulebook, Ministries are obliged to have an internal audit department and the MoH complies with this requirement⁵⁶. There are ongoing efforts to establish five regional internal audit units that will cover the audits of hospitals, clinics and other medical institutions within respective jurisdictions. The Central Harmonization Unit is supporting capacity building efforts including the adoption of a risk based approach and methodology to address both compliance and performance issues during audits. Those efforts include ongoing training and accreditation and overall monitoring of technical quality. The Program Action Plan includes a proposal to continually monitor progress and achievement of performance targets.

66. The HZZO's Service for Control Directorate is responsible for the supervision and control over the execution of contractual obligations of healthcare institutions and of health professionals (including those in private practice) and who provide health and health related services (e.g., procurement and distribution of medicines, orthopedic and other aids (hereinafter: the contractual entities). This unit executes its supervisory responsibilities in accordance with national laws and bylaws, international contracts on social insurance, general and individual enactments, and, following the performance of supervision, and in case of ascertaining illegal and incorrect actions and failures to comply with contractual obligations, the issuance of some of the contracted measures.

67. The method of performing supervision and controls within the contractual entities of the Institute, as well as in organizational Offices of the Institute, is regulated and is being executed in compliance with the provisions of the Rulebook on Authorities and Method of Operations of Inspectors in the Croatian Health Insurance Institute ("Official Gazette", February 17-21, 2014; hereinafter: the Rulebook).

68. The inspectors (based in the regional offices of the Health Insurance Institute) regularly review and exercise a control function over billing invoices and regular monthly reports on hospital operations. Special attention is paid to the review those hospitals (and clinics) which report significant discrepancies in the performance of contractual obligations including reports on rates of sick leave (doctors), the index of expenditure of the funds intended for prescription medicines, rates for reimbursement of healthcare services provided for primary care, and reports on invoices when inpatient treatment of an insured person conflicts (or overlaps) with the period when other patient services were provided to the same patient. Detailed tables of supervision data can be found in the full FSA (Annex 4, tables 7-11) which demonstrate the coverage of directorate and specifically respond to concerns over billing, citizen complaints (regarding services), and other issues including hospital procurement of specific medical devices.

PROGRAM AUDIT

69. The State Audit Office (SAO) is in-charge of the financial and performance audit in Croatia public sector. The MoH is audited annually by the SAO. However hospitals, clinics and other health

⁵⁶ <http://www.mfin.hr/adminmax/docs/Pravilnik%20o%20unutarnjoj%20reviziji%20korisnika%20proracuna.pdf>

institutions are audited on a more irregular basis. As result some hospitals are audited annually while others are audited every 4 years, depending on the situation in a certain hospital.

70. Croatia's State Audit Office (the Supreme Audit Institution) is considered strong. The State Audit Office's (SAO) external audit report of Government is publicly available, and external audits meet the requirements of International Organization of Supreme Auditing Institutions (INTOSAI) auditing standards. The SAO has in place a long-term development strategy formally adopting INTOSAI and developing more modern audit tools and practices.

71. The Croatian SAO has issued qualified-exception opinion on the Ministry of Health's financial statements for the year that ended on December 31, 2012, which included benefit programs executed by the new Ministry of Social Protection and Youth. Similarly the HZZO has received a qualified-exception opinion on its 2012 financial statements. Furthermore, the SAO has conducted audit of 30 health institutions (hospitals, clinics, for FY 2011). The SAO has issued 2 unmodified audit opinions (Karlovac, and Pozega), while the remaining 28 hospitals received qualified audit opinions. The main reasons for qualifications related to continued accumulation of arrears by hospitals (an issue that will be addressed by the proposed Program); and variations in the application of internal control and accountability processes (an issue that will be addressed through the ongoing strengthening of the internal audit function).

72. For the Program, the financial audit of the MoH carried out annually by the SAO will include the audit of the administrative budget of the MoH. The separate annual financial audit of the HZZO will include the financing (reimbursement) to hospitals. The scope of the financial audit of HZZO includes the SAO's review of the work and findings of the HZZO's Service for Control Directorate, which focuses its control work on hospitals as previously noted. These two separate audit reports, which will be submitted to the Bank within 12 months of the close of the Program's financial year, will meet the Program audit requirements under the Bank's Operational Policy 9.00.

KEY FIDUCIARY PERFORMANCE INDICATORS

DESCRIPTION
Budget Variance reduces from 6% to less than 3%.
HZZO Service for Control Directorate has: (A) conducted regular inspections of hospitals under the Program; (B) conducted specialized reviews based on risk assessments or significant complaints regarding health services provided.
Internal Audit units functioning in large hospitals (increase in coverage by 20% each year over 5 years of the Program).
Improving the quality and timeliness of financial statements of MoH (to be prepared within 90 days of the end of the fiscal year).
Audited financial statements of the Program received within 12 months of the end of the previous fiscal year.
External Audit recommendations fully implemented.

GOVERNANCE

73. Within the context of this health program, there are a few institutions and specific functions which are directly related to combating fraud and corruption, and which have been found to be in full compliance with the expectations as set forth in the *acquis communautaire*. **As such, this operation will rely on national institutions and public bodies responsible for combating fraud and corruption – i.e., the government will use its own systems for responding to concerns (from citizens, contractors,**

etc.) related to governance. A February 2014 EU review report⁵⁷ observes that extensive information was collected as part of the pre-accession process and related monitoring. More broadly, the monitoring of anti-corruption efforts that has been part of the enlargement process has brought many useful lessons that could have been applied in that context, notably, factors affecting sustainability of an anti-corruption agenda. The report cites, as a good practice example, USKOK's track record of proactive investigations and successful prosecutions, including high level elected and appointed officials. The report also cites the March 2013 establishment of a public procurement electronic database that provides public access to key procurement information. A country-specific annex on Croatia observes progress in addressing healthcare sector observations from a 2011 UNODC study, notably those included in the updated national anti-corruption action plan and the Agreement on Ethical Advertising of Medical Products.

74. Within the health sector, the key governance (including corruption) concerns include the (i) value of goods procured – both through the central procurement body (central tendering) and through the health sector system for centralized procurement (including both medical and non-medical goods); (ii) the systemic cases of abuse of sick leave (medical staff authorizing more sick leave days for insured patients than justified); (iii) inaccurate billing (incorrect or over-billing) for health services rendered which qualify for reimbursements from the HZZO.

75. A fourth area of concern, which is outside the scope of this operation, and practical mitigation measures relates to dramatic reduction or cuts in rates of reimbursement from central government (the MoF through the MoH then through the HZZO) to hospitals for health services rendered. While these cuts have been administered in the context of a series of measures to implement a more austere short- and medium-term fiscal framework (in response to the growing budget deficit), the impact has had detrimental effects at the level of hospitals. Operational plans which in many cases (observed) were carefully crafted in a medium term context have been discarded as clinics and hospitals which had benefitted from past budget surpluses are now running deficits and accumulating significant arrears.

76. The following, in particular, are the key aspects of governance and anti-corruption which have been reviewed in the context of this operation:

Program Expenditure Area	Governance-related Function/Institutions
Centralized Procurement	(i) the public procurement law and functions of the central procurement body (ii) the complaints handling mechanism for public procurement (iv) the Croatian Anti-Corruption body
MoH Administrative Budget	(iii) the system of internal control and the function of internal audit – PIFC (Public Internal Financial Control, Chapter 32 of the <i>acquis</i>) (v) the transparency inherent in statutory government (budgetary) reporting requirements (vi) the Fiscal Responsibility Act (vii) the external audit and oversight function (Chapter 32 of the <i>acquis</i>)
Hospital Financing (reimbursement) through the Croatian Institute for Health Insurance	(v) the transparency inherent in statutory government (budgetary) reporting requirements (vii) the external audit and oversight function (Chapter 32 of the <i>acquis</i>) (viii) the service from the Control Directorate of the Croatian Institute for Health Insurance.

⁵⁷ "Report from the Commission to the Council and the European Parliament, EU Anticorruption Report" dated February 3, 2014. Website: http://ec.europa.eu/dgs/home-affairs/e-library/documents/policies/organized-crime-and-human-trafficking/corruption/docs/acr_2014_en.pdf

77. The three main areas identified as relevant for the assessment include:

- Transparency, integrity and accountability in selection of the activities included in the Program;
- Systems capacity to handle risks of fraud and corruption throughout implementation of the Program activities;
- Integrity issues within the Croatian health sector supported through the Program.

Transparency, integrity and accountability in selection of the Program's activities

78. The first step in assuring transparency, integrity and accountability in the selection of activities included in the Program was to focus on Program activities that address strategic problems and priorities identified in the recently adopted 2012-2020 National Health Care Strategy, preparation of which included wide consultation and consensus building among all key stakeholders. The last doctors and nurses strike (2013) indicates that implementation of the reforms listed in the Strategy will not pass without strong oppositions and disagreements when it comes to operational details, however, general consensus has been achieved among key stakeholders regarding strategic problems and priorities identified in the Strategy. Consequently, the Program also supports necessary reforms identified and selected through an open democratic process.

79. Transparency and accountability in selection of the concrete activities supported by the Program will be secured through consultations and negotiations with the key stakeholders which will happen before adoption of any of the foreseen Action plans for implementation of the Strategy, including Master plan for hospitals among others. The above mentioned strike again indicates that these processes will have to be wide open and very thorough in order to get the implementation documents accepted by a critical mass of stakeholders. Therefore, it is critical that the PforR support implementation of priority reform measures and activities for the Croatian Health Care System that are identified and selected through an open democratic process.

Systems capacity to handle risks of fraud and corruption throughout the Program implementation

80. The most solid aggregated indicator of the borrower's systems' capacity to handle risk of fraud and corruption is the recent Croatian EU membership, which requires the establishment and proven reasonable effectiveness of all systems in handling fraud and corruption. This area being the most scrutinized criteria for Croatian EU membership.

81. More specifically, Croatia has EU harmonized legislation framework and institutional arrangement for public procurement. The main law regulating public procurement including the procedures for submission and processing of complaints is the Public Procurement Act (Official Gazette 90/2011, 83/2013) that entered into force on January 1, 2012.

82. As stipulated by the Act on the State Commission for Supervision over Public Procurement Procedure (Official Gazette 18/2013), the central body responsible for handling of all complaints on public procurement in Croatia is the State Commission for Supervision over Public Procurement Procedure. The State Commission standard procedures are in line with the highest standards of transparency and accountability with all their decisions being publicly available on their website (www.dkom.hr) and available in Croatian and English languages.

83. The State Commission has five members, one of whom must act as its Head and the other as its Deputy Head. They are appointed by Croatian Parliament on the proposal of the Croatian Government. Three members of State Commission, including the Head and Deputy Head, constitute a quorum

necessary for decision-making. Decisions of the State Commission are passed by a majority vote at the council meetings. No Commission member shall abstain from voting.

84. The State Commission submits to the Croatian Parliament annual reports on its work (if requested by Parliament, the report can cover a period of less than one year). The report includes data and analyses concerning legal protection in public procurement procedures, granting of concessions and selection of private partners in public-private partnership projects. The reports has specified content, including the data on: total number of the appeals received; the number of appeals received by individual stages of the procedure; the number of cases categorized by various possible outcomes (e.g. dismissed, rejected, upheld or suspended appeal procedures; approval of continuation of the procedure and /or award of a public procurement contract; annulled decisions, procedures and actions of the contracting authorities due to unlawfulness; annulled public procurement contracts); the number of fines levied and the amounts thereof; average time for adoption of decisions both form the date of receipt of appeal and from the date of completion of the appeal case documentation; the contracting authorities having five or more appeal procedures before the State Commission, including the number of legitimate appeals in such appeal procedures and the total number of implemented appeal procedures related to the concerned contracting authorities; the most common reasons for lodging appeals; the most common irregularities established by the State Commission; legal actions against the State Commission's decisions; the number of submitted accusatory motions.

85. According to the Report, in 2011, 1,921 complaints were received (7.61 percent of the total number of public procurement procedures carried out in Croatia during that year), out of which 1,888 were solved by the end of that year. Approximately $\frac{1}{4}$ of complaints were justified, resulting with the cancellation of the related procurement, while $\frac{1}{4}$ were rejected, and $\frac{1}{4}$ dismissed. Seven charges were filed in court for violation of the Law on public procurement. Contracting authorities having five or more appeals have included also a number of the hospital and clinic centers, as they are relatively frequent buyers; however, percentage of the adopted complaints in their case was below average. The average time for adoption of a decision was 61 days, while average public procurement duration was 63 days.

86. In line with the Regulation on control over the implementation of the Public Procurement Act (Official Gazette 10/12), the Ministry of Economy is the central governmental body responsible for control of implementation of the Law; this means that the ministry as to react (within 8 days) to complaints received. If the violations of the Law are confirmed, the Ministry files charges against the responsible parties in court.

87. The main body within the Croatian criminal justice system in charge of anti-corruption is the Bureau for Combating Corruption and Organized Crime (generally known as USKOK) attached to the State Attorney office, formed in 2001, whose functioning is regulated by Law on Bureau for Combating Corruption and Organized Crime (Official Gazette 76/09, 116/10, 145/10, 57/11, 136/12). It has a counterpart in the Criminal Police Directorate (the Police National USKOK), as well as in the judiciary (the Court Departments for Criminal Cases in the jurisdiction of USKOK). Already completed and still ongoing processes against the highest political figures in Croatia (including the former Prime Minister and some other Ministers) are fair indicators of the system's capacity, operative effectiveness and independent functioning. Any potential allegations of fraud and corruption in the Program should be submitted to USKOK, which will then react by initiating investigative procedure.

88. The systems handling risks of fraud and corruption during Program implementation are, therefore, in place and functioning.

Integrity issues within the Croatian health sector supported through the Program

89. The 2012-2020 National Health Care Strategy acknowledges that the health sector is highly prone to corruption, and that Croatia is not an exception. Long waiting lists coupled with lack of transparency in their formation and functioning, lack of clinical protocols and care pathways, lack of quality standards, monitoring and control within the system, all of this creates an environment which may enable corruptive behavior. Consequently, the Strategy among its priority measures also includes Combating the corruption and non-formal payments in the health sector.

90. In its effort to combat corruption, the ministry established a “White Phone” – namely, a free phone service whereby users / patients can report their complaints on the quality of services provided by medical staff within the sector. Through the established service, users are informed of their rights and provided guidance and next steps through which they can attain them. If the complaints cannot be resolved immediately, they are recorded and the patient is informed in writing of the solution of the reported complaint. Complaints that are received, may also trigger further investigative or even corrective action within the system.

91. On average, around 900 complaints are received monthly, out of which ¼ are complaints related to unprofessional behavior of medical staff (long waiting, unkindness, inability to get information); 1/3 are related to health insurance issues; 10% are related to waiting lists and e-appointments for various medical treatments; while the rest are questions related to addresses, working hours, contacts in various medical institutions. Complaints related to erroneous medical treatment are relatively rare.

92. The service has been criticized by the representative of the Croatian Association for the Promotion of the Patient’s Rights as being more of a complaints collecting and recording mechanism rather than operative in assisting patients in resolving their problems.

93. In this respect, the PfR’s expected impacts on the integrity within the Croatian health sector, it is clear that the Program focus on improving systems efficiency (through better management, structure, organization and control) directly contributes to improving the operating environment which leaves less space for corruptive behavior.

MONITORING AND IMPLEMENTATION SUPPORT

94. The Bank’s fiduciary team will regularly review the previously noted baseline indicators. The team will place a particular focus on: (i) the establishment of functioning internal audit units for large hospitals under the Program; (ii) the level of reimbursement payments from HZZO to hospitals and whether adjustments to reimbursements have been shared in a timely manner with hospitals and, if hospitals have adjusted their budget and financial plans, to account for these adjustments; (iii) the implementation of the regular control and supervision work plans of the HZZO’s Service for Control Directorate; and (vi) the implementation of significant audit recommendations (issued annually by the SAO) by the MoH and HZZO, respectively.

95. Additionally, the team will support the government in the development of a framework to monitor and enforce improved expenditure management performance at the level of hospitals. This framework has not yet been developed but will be a key component to ensuring longer term sustainable public expenditure management practices once the hospital financial rehabilitation plans have been completed.

96. Although the experience with the joint procurement until now could be considered as quite positive, there are areas which need enhancement and further improvement related mainly with the long time required for preparing technical specifications for medical equipment, consumables, materials and pharmaceuticals for hospitals, the lack of contract administration and monitoring system; further building and sustaining of capacity for procurement management, development and application of e-procurement.

97. The Bank fiduciary team will work with the Borrower to monitor overall implementation progress and address areas which need improvement as identified above. It will also have a continued involvement in:

- Reviewing implementation progress and achievement of program results, including effectiveness and quality of procurement planning, timeliness and cost effectiveness of delivering goods and services to end-users, competitiveness of the procurement processes, extent of the implementing agency's compliance with the applicable rules with regard to use of different procurement methods, timeliness and efficiency of contracts' implementation and payments.
- Providing support for implementation issues and institutional capacity building, as relevant.
- Monitoring the performance of the fiduciary systems and audits, as well as compliance with fiduciary provisions of the legal covenants and the program Action Plan.

Annex 6: Summary Environmental and Social Systems Assessment

1. This Annex is based on the Environmental and Social Systems Assessment (ESSA) for Program-for-Results: Improving Quality and Efficiency of Health Services in Croatia. It covers both the environmental and social aspects of the Program, structured in five sections: (1) environmental and social impacts and risks; (2) environmental and social management systems; (3) evaluation of the environmental and social management systems; (4) potential inputs for the Program Action Plan; and (5) findings from the consultation process.

PROGRAM ENVIRONMENTAL AND SOCIAL IMPACTS AND RISKS

2. The baseline situation addressed by the Program is well indicated by the following five main strategic problems of the Croatian healthcare system identified in the 2012-2020 National Health Care Strategy: 1) Poor connectivity and insufficient continuity within the health care system; 2) Uneven or unknown quality of health care; 3) Insufficient efficiency and effectiveness of the health care system; 4) Poor or uneven accessibility of health care; and 5) Relatively poor health indicators. The general ESSA finding is that the Program, with its focus on patients' needs, removal of inefficiencies and improvement of the quality of provided healthcare services, is not a threat to the environment, but an opportunity to improve environmental and social performances of the Croatian healthcare system, serving as a framework for a thorough integration of environmental and social considerations into the urgent and needed reform processes.

3. **Environmental Risk Screening Exercise focused on the two main identified environment-related aspects of the Croatian healthcare system.** The first is that healthcare in general is an energy- and resource-intensive sector with significant environmental footprint and potentially significant negative impacts. More specifically, medical facilities consume significant amount of water, food, energy, pharmaceuticals, various chemicals, etc. On the output side, it generates significant amounts of waste, including hazardous medical waste, radioactive waste, wastewater and emissions into air. The second is that some of its agencies – primarily: 1) Ministry of Health's Directorate for Sanitary Inspection; and 2) Health Ecology Service within the Croatian Institute of Public Health and network of Counties Public Health Institutes – play significant roles in the overall national environmental protection system related to the area of Environmental Health.

4. **The Screening Exercise consisted of:** 1) standard task of environmental screening of the currently foreseen Program's activities in order to identify and assess their potential environmental impacts; and 2) environmental screening of the Croatian healthcare sector in order to check whether there are some environment related priorities associated with the healthcare sector, overseen by the Strategy and therefore also not foreseen by the Program, while theirs importance and urgency, as well as their potential contribution to fulfilment of the Program overall goal justifies their inclusion among the sector's priorities that should be addressed by the Program.

5. **The first part of the screening** identified includes two minor environmental risks: 1) potential negative impacts of foreseen reconstruction works; and 2) potential negative environmental consequences of rationalization of non-medical services and transition to more centralized procurement practices. Related to these, it is assessed that both impacts can be easily avoided by appropriate management and mitigation. The screening also identified following two very probable Program's environmental benefits: 1) expected improvements in environmental performance of the facilities due to their foreseen reconstructions and modernizations; and 2) potential benefits coming from foreseen establishment of the quality monitoring and accreditation practice (with environment-related accreditation standards).

6. **The second part of the screening exercise** aimed at the Croatian HealthCare system, looking for measures of the following three types which arguably would deserve to be part of the Program: A) measures that would capitalize potential environmental co-benefits; B) measures that would address environmental issues whose seriousness requires urgent intervention; and C) measures with “high environmental returns” on relatively small invested resources. The screening of the Croatian healthcare system was done according to Environmental Best Practice in Healthcare, which has been promoted by WHO and many other organizations under the agenda of the Green Healthcare sector. A number of measures have been identified in all standard environment-related areas; the assessment was narrowed down to seven themes that were assessed as the highest priority. These include: 1) Medical waste management; 2) Radiological safety within the medical facilities and radioactive waste; 3) Hospital infections; 4) Occupational health within hospitals; 5) Energy efficiency; 6) The areas under the jurisdiction of the Sanitary inspection, including: chemicals and biocides safety, environmental noise protection and protection from nonionizing radiation; 7) Environmental Health and related Laboratory Services.

7. **Social Risk Screening Exercise** was structured around the four main themes. The first relates to potential internal and external resistances to changes foreseen by the Program, notably, the reorganization of the health facility network aiming for higher efficiency and quality of services for patients and ways in which the health care services are provided (e.g. quality monitoring and control, defined care path protocols and procedures, centralized procurement). Although all these changes are in favor of both patients and the employees within the system, i.e., the higher overall quality for the patients and better organized and managed system for the employees – opposition to these are likely. More specifically, rightsizing/rationalizing of the hospital capacity or health facility network and the health facility network foreseen by the Program could be perceived by the public at large as reduction of their rights in accessibility of health services in the regions (counties) where rationalization might take place. A negative perception of the foreseen changes and potential dissatisfaction are assessed as major risk. A rather limited success of all previous reform attempts (some of which have been supported by the Bank) could also contribute to certain resistance to healthcare system reforms. Effective change management, which also includes effective public awareness and communication outreach of the reforms measures and their overall advantages and fairness, is of critical importance.

8. **The second group of potential social impacts is related to social inclusion and equity in access to the health care services.** Significant inequalities on the basis of socio-economic status exist in Croatia with studies showing that low-income groups use significantly less specialized services than higher income groups when health status is held constant. Equity issues are also raised by the growth in out of pocket payments which are disproportionately paid by lower income groups. In addition, privatization of some services has introduced a two tier system. Main groups at risk in terms of low access to quality health services are: those on a low income, the unemployed, large families, the elderly and people living in remote areas. **2012-2020 National Health Care Strategy** is mentioning some vulnerable groups: “*Greatest contribution to the disease burden of the elderly people is chronic diseases ... there are more than 519,000 persons with disability in Croatia, which is about 12% of the total population; according to groups of diseases of war veterans and their family members, were mental disorders (76.6%); there are no routine health care and statistical research on the condition and health care of Roma, therefore the estimates are given based on individual field research*”.

9. Some Program activities (e.g. rightsizing/rationalizing) designed to change conditions for listed groups or selected problems could have negative impact, however, the main goal of the Strategy and the Program is to reduce existing inequalities and inequities in health. Planned rationalization of the health facility network is designed to create new resource allocation in health care which could decrease regional disparities in accessibility of health services for targeted groups and needed services such as new care by certain professionals, new diagnostic procedures or therapies, etc. Also, proposed changes are not

expected to deepen the existing inequalities in health status outcomes between different income levels groups (large gaps between the richest and the poorest groups).

10. The third group of potential social impacts is related to social accountability of the health care system. Improvements related to social accountability and transparency are ongoing. For example, the new Regulation introduced in 2009 has improved transparency, timeliness and methodology of decision making by the HZZO's Committee for Medicines. Since 2010, patients' representatives are members of county health councils. Since 2012, some positive changes have been implemented: participatory approach has been applied in the preparation and development of the National Health Strategy 2012-2020 with a series of consultations meetings and public debates held country wide. Also, regular weekly meetings are being held between various patients' associations and the Minister of Health. Additionally, the website of the MoH is a good example of transparency with all relevant health information posted and communicated to the public. The weekly meetings and website could also serve as communications channels to voice and address any negative social impact of the Program activities.

11. The fourth group relates to potential impact on the employees – medical and non-medical staff within the reformed system. These primarily relate to the long term plans for rationalization of non-medical services and impacts caused by reorganization of the health facility network could have negative social effects in terms of potential new professional roles for medical staff and potential retrenchment /lay-offs of non-medical staff working in non-medical services such as laundry, cleaning, accounting, etc.

PROGRAM ENVIRONMENTAL AND SOCIAL MANAGEMENT SYSTEMS

12. Foreseen construction works includes exclusively reconstruction of existing premises, or some minor appendices/modifications to the existing premises improving theirs overall functionality. All related environmental aspects are regulated in two ways. First one is through the permitting system for construction itself where different authorized bodies issue permits or conditions for constructions in which they stipulate environment related construction practices specific for the site. The second one is through sector specific regulation like national standards for emissions and other impacts. All regulations have been harmonized with relevant EU legislation. During the construction, the site engineer and supervising engineer are present on site. Former is in charge of compliance with the permits and regulation and later for the supervision of the compliance.

13. The Croatian legislation related to the HealthCare sector **quality monitoring and accreditation** include the Act on the Quality of the HealthCare and Social Care (OG 124/11) and associate bylaws like Ordinance on HealthCare Quality Standards and its Implementation (OG 79/11); Ordinance on the Accreditation Standards for Hospitals (OG 31/11). The full compliance with the defined quality standards is mandatory, while the accreditation is voluntary. Both quality and accreditation standards have integrated standards “measuring” some aspects of environmental performance of the facility, most notable related to hospital infection, occupational health, medical waste management and energy efficiency. The main institution in charge of establishment, coordination and management of the quality monitoring, control and accreditation framework is the Agency for Quality and Accreditation in Health Care and Social Welfare. Each medical facility is responsible for establishment and management of its quality management systems.

14. Croatian legislation regulating **medical waste management** is fully harmonized with EU legislation. The authority responsible for the overall area of waste management in Croatia is the Ministry of Environmental and Nature Protection, however, all other levels of government (regional and local) has their responsibilities, as well as legal and physical persons that generate waste. More specifically, related to the medical waste management, all larger sources (>200kg of hazardous medical waste annual) should designate a responsible person within the legal person, while for the small sources (< 200kg/year) the

responsible person is general manager of the legal person. Environmental Inspection has important supervision authority, over the all mentioned responsible instances within the system. Subject of medical waste management is also covered by Accreditation standards (OG 31/11) for hospitals.

15. Croatian legislation related to the **Radiological safety within the medical facilities and radioactive waste** has been fully harmonized with EU legislation. The responsible authority for the area of Radiological safety within the medical facilities and radioactive waste is State Office for Radiological and Nuclear Safety (Croatian acronym is DZRNS). Its tasks include everything from issuing permits for operation with sources of ionizing radiation and keeping of official registers related to sources of ionizing radiation via activities supporting capacity strengthening within the system.

16. The main legislation regulating area of **hospital infections**, which fully implement all WHO and ECDC (European Center for Disease Prevention and Control) standards and recommendations, include Act on Population Protection from Infectious Diseases (OG 79/07, 113/08, 43/09) and Ordinance on Preconditions for and Implementation of Measures for Prevention and Abatement of the Hospital Infection (OG 85/12, 129/13). In addition to that, various official guidance documents have been issued. Ordinance specifies 21 measures for prevention and abatement of the hospital infections. Subject of hospital infections is also covered by adopted Quality standards (OG 79/11) and Accreditation standards (OG 31/11) for hospitals.

17. Croatia has also developed regulatory and institutional framework dealing with the general **occupational safety issue**, including the Act on Occupational Safety (OG 59/96, 94/96, 114/03, 100/04, 86/08, 116/08, 75/09, 143/12) and numerous bylaws regulating specific aspects of the occupational safety. Staff occupational safety is also integrated among the adopted Quality standards (OG 79/11) and Accreditation standards (OG 31/11) for hospitals. Ministry of Labor is the authority responsible for the establishment of the functional regulatory framework. All employers, which clearly include all medical facilities, are responsible for its implementation, i.e. for securing a safe working environment.

18. Related to the theme of the **energy efficiency** (EE), Croatia fully transposed EU directive 2006/32 on energy end-use efficiency and energy services by its End-use Energy Efficiency Act (OG 152/08, 55/12). In line with the directive / Act's requirements, Croatia also adopted the National Energy Efficiency Program 2008-2016, associated national action plans. The most recent action plan specifies that the focus should be on the preparation and implementation of the EE projects in buildings like hospitals, as without these, reaching of the target is highly improbable. In doing this, the public sector is expected to lead by example. The national competent authority for the area of energy efficiency is the Ministry of Economy. The foreseen EE projects for the public sector will be programmed for co-financing from EU structural funds in period 2014-2020.

19. Standard environmental themes under jurisdiction of the Sanitary inspection include: **1) chemicals safety; 2) protection from environmental noise; 3) protection from nonionizing radiation**. All relevant legislation is fully harmonized with relevant EU legislation. The other institutions with important roles in the listed areas include: 1) Croatian National Public Health Institute and network of county Public Health Institutes, which are providing required laboratory services; 2) Croatian Institute for Toxicology and Anti-doping, which is the main operative provider of information, advice, education program, certificates on fulfilled education programs in the area of chemicals; 3) various other legal entities officially authorized by the MoH for official monitoring and analysis.

20. The main law regulating the area of **Environmental Health or Health ecology** is the Health Protection Act (OG 150/08). Currently, there are 22 Public Health Institutes in Croatia. **Ecological Health (EH) Services** as departments specialized for EH tasks and activities, including provision of EH Laboratory services. Croatian Accreditation Agency is the authority for accreditation of EH Laboratories

according the international norm ISO 17025. As part of the EU *acquis communautaire* transposition, Croatia also adopted Ordinance on Good Laboratory Practice (OG 38/08) and National program of surveillance of compliance with GLP (OG 61/12). The MoH is the competent authority for implementation of both Ordinances.

21. Social Management System and Legal Framework: the MoH is responsible for health care planning at the central level and is the key stakeholder in charge of the reforms. The MoH is responsible for any social issues or consequences related to health or health care system reform. For several years, the MoH has been implementing various health care reform projects, mainly governed by task force or working groups.

22. There are several other acts which regulate the work of the health care professionals and health services. The Health Care Act regulates the principles of health care organization, the rights and obligations of health care users, types and responsibilities of health care institutions (at various levels of care) and establishes the principles of monitoring of health care institutions. The Law on Compulsory Health Insurance regulates the scope of the right to health care and other rights and obligations of persons insured under the MHI scheme. The rights of patients are comprehensively regulated in the Patient's Rights Protection Act.

23. The National Health Care Network is the official planning tool that determines allocation of health care resources (financial and other, such as infrastructure and human resources) between counties. The allocation of resources takes into account parameters such as morbidity, mortality, traffic links and demographic characteristics of their respective populations and it is renewed every two to five years.

24. Croatia's social health insurance system is based on the principles of solidarity and reciprocity, with the citizens expected to contribute according to their ability to pay and receiving basic health care services according to their needs. There is one insurer in the mandatory health insurance (MHI) system, the Croatian Institute for Health Insurance (HZZO). Development of the Strategy 2012-2020 was based on a partnership approach, and was organized in such a manner to include as wide as possible a circle of interested experts and general public.

25. Croatian patients actively participate in the decision making process by participating in public debates. In addition, patients are represented in the *County Commissions for the Protection of Patients' Rights* and in the governing board of the HZZO and of the *county health councils*. In order to enhance public participation and improve patients' satisfaction, in 2012 the Minister of Health introduced regular meetings with patients associations' representatives. As of January 2012, representatives of different associations meet once a week with the Minister and discuss patients' problems and obstacles encountered while realizing their right to health care.

26. A patient who considers that one of his/her rights established by the 2004 Act has been violated may make a verbal or written complaint to the head of the health care institution in which the alleged violation took place. Also, the MoH introduced a free telephone service „White phone“ which enables patients to elicit their complaints on health workers or any other complaint in relation to realizing their right to health care.

27. There are several legal sources for regulating potential retrenchment /lay-offs of the medical or non-medical staff. At the national level, the legal sources are: 1) the Labor Act - the obligation to care for workers after or during the employment termination; 2) collective agreements - the obligation to provide support and severance pay regulated in collective agreements; 3) combination of the above mentioned legal sources or some other specific measure/program developed for specific workforce group. The

severance pay scheme, the right to severance pay is regulated in the Labor Act under the "*Termination of Employment Contracts*".

EVALUATION OF THE ENVIRONMENTAL AND SOCIAL MANAGEMENT SYSTEMS

28. The experience based assessment is that in general reconstruction practices – such as those foreseen by the Program in Croatia are conducted in good compliance with the national regulation. In other words, relevant regulatory framework is functioning well. Consequently, there are no relevant significant systemic weaknesses that should be addressed by the Program's Action plan. However, ESSA of healthcare system has identified a number of environmental and social measures that could very effectively and efficiently contribute to fulfillment of the overall Program goals.

29. Related to the **quality monitoring and accreditation**, the establishment of the overall framework is underway. However, a lot of efforts will be required in order to achieve Program's DLI 6, which targets 60 percent of accredited hospitals in 2016 and 70 percent in 2017. This would require technical assistance in various phases of the system establishment, from the finalization of legislative framework, to its piloting and throughout support (both on the sectorial level and the level of individual hospital) to hospitals that should establish and operate required quality management systems. Although environmental standards are included in the accreditation process, more thorough integration of environmental consideration, as well as grouping of all environmental themes in its own "environmental performance section", that would more readily translate in standard environmental management system which would be one of the subsystems of the quality management system within the medical facility is yet to be accomplished.

30. **Management of waste** in all public sector medical facilities (as well as major private sector facilities), is operating very much in compliance with all legal requirements. A space remaining for improvement in waste management practices within the medical facilities in the public healthcare network is the minimization of generated hazardous medical waste quantities through improved selective waste. The suggested approach, with effectiveness proven on a number of examples all over the world, is the establishment of a comprehensive Environmental Management System as a framework for combination of measures including awareness raising and training of the staff, performance monitoring and control, reporting, improvements in waste collection infrastructure.

31. According to the State Office for **Radiological and Nuclear safety** assessment, the current level of radiological safety within the medical facility is not satisfactory, neither from the point of the quality of provided healthcare service in a sense of maximization of benefits from the therapy while minimizing harmful effects of the radiation, nor from the point of environmental safety and occupational safety of the medical staff. Measures required for improvement of the situation includes acquirement of missing equipment, modernization of the obsolete equipment, education and training of the staff, preparation of the Standard Operational Procedures guaranteeing maximum level of radiation safety, which will be done through the Program. The situation with the radioactive waste – i.e. sources of ionizing radiation from medical facilities which are not anymore actively used – is much better, in a sense that the itinerary of such items are carefully monitored and controlled, and level of compliance within the system is high.

32. Relevant legislation and established institutional framework regarding **hospital infections** is fully in line with WHO standards and recommendations. However, there is still a lot of space for improvement, most notably related to the implementation of the established framework (establishment of dedicated organizational unit staffed with trained personnel, enforced implementation of foreseen measures, better monitoring and reporting, etc.), especially at the operational level within the medical facilities.

33. Croatia has well developed regulatory and institutional framework dealing with the **occupational safety issue within medical facility**. However, the practice differs significantly from what is regulated. As the foreseen monitoring systems – i.e. monitoring of compliance with the adopted quality standards which includes occupational safety and employees' satisfaction – is not yet implemented, there are no dependable data on the situation with occupational safety, in particular occupational hazards and accidents specific for medical facilities. Establishment of the monitoring system would be the logical first step in attempt to improve situation as, besides providing sound data baseline for analysis and adaptive planning of corrective measures, it would also contribute to awareness rising regarding the issue, and thus to improve performance within the facility.

34. The analysis of the collected data – from a representative sample including around 80 percent of the total capacities, has shown **poor average energy efficiency of the Croatian healthcare facilities**, i.e. capacity for 30-50 percent savings. The national program implemented several educational programs which involved over 3000 employees of the Ministry of health. As the next step, energy audits were made for approximately $\frac{1}{4}$ of objects. All these present a solid foundation for further development and scaling up of EE activities. However, the system's capacity to capitalize this opportunity is not yet sufficient. The main barrier identified was the lack of coordination and organization within the system. Measures should include establishment of the central register, procedures for selection and support to priority projects, securing of TA for their preparation and implementation. EE projects will also be high on the agenda of the Operational programs for EU funds for the period 2014-2020.

35. The functioning and capacities of the **Sanitary inspection** is functioning well. The first, outcome-based argument is that there are no more significant or frequent accidents that would indicate the need to strengthen activities of the sanitary inspection. The second, output based argument is that relevant EC authorities, based on their monitoring of compliance with EU criteria during the accession process, confirmed that Croatia fulfilled its obligations. This said, it should be emphasized that maintaining sufficient capacities should be taken as a serious task and that the presence of a sufficient number of inspectors who are well distributed over the territory in sufficient frequency of control sampling is the key prerequisite for effective preventive functioning of the inspection service.

36. Although the Health protection Act lists as one of the duty of Public Health Institutes the main portion of the standard EH tasks, in practice, its operations is much narrower. As there is no dedicated budget line for the **Environmental Health** programs, the **Health Ecology Services** is financed solely by selling their services on the market. The developed capacities – from 7 Services in 1990 to 18 Services – do not meet the current needs, which make existing system highly inefficient, relative to EU average. Such development was (and still is) a consequence of insufficient of even non-existing coordination between different levels of government (i.e. each County is autonomous in its planning) and various sectors that requires similar type of laboratory services (Sanitary inspection, i.e. Ministry of Health; but also Ministry of Environment, Ministry of agriculture, etc).

37. **Social Management System Evaluation:** The 2012-2020 National Health Care Strategy attempts to tackle the lack of understanding with regards to the need for reforms by the Croatian society, the undermined trust in the public sector institutions due to perceived corruption and regionally uneven economic strength and ability to finance health care.

38. There are very limited data and researches on the policy process of health care reforms in Croatia. Moreover, there is also no systematic evaluation of the reform outcomes. However, in the last few years through Bank's supported projects, the development of strategic planning at the MoH has been initiated. The 2012-2020 Strategy envisions the health care system which "*will, in an efficient and rational manner, implement the measures of health protection and improvement, as well as treatment and rehabilitation of patients, always governed by scientifically based findings. The system will give patients central and active*

role, and it will be driven by high ethical and moral standards.” The HZZO and the majority of hospitals or other health care institutions provide key information related to publicly-funded health care services and rights, including some technical information, such as those related to waiting times and available treatments. This information has significantly improved the quality of health care, especially after the introduction of e-Waiting lists and e- Ordering.

39. Positive example is the approach and the entire methodology used for the preparation and development of the 2012-2020 Health Care Strategy which included professionals and the general public. Based on the collected data and partnership consultations, a SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis was drawn up, strategic problems of the Croatian health care system were identified and strategic development directions, priorities and measures were suggested. The final product of the described process was the draft of the Strategy, a document that served as basis for public discussion. Other positive examples are several changes in counties’ health policies and practices that could be attributed to the “Healthy Counties” project which successfully engaged stakeholders from political, executive, and technical arena. It has involved variety of community groups (youth, elderly, unemployed, farmers, islanders, urban families, etc.), local politicians, and institutions in the needs assessment, prioritizing and planning for health cycle.

40. Program activities, primarily planned rationalization of the health facility network and rationalization could have negative social effects in terms of potential retrenchment/lay-offs of non-medical staff working in non-medical services such as laundry, cleaning, etc..

RECOMMENDED INPUTS FOR THE PROGRAM ACTION PLAN

41. ESSA conclusion is that the Program has no potential negative environment-related impacts that should be specially addressed by the Program’s Action plan. However, the environmental screening of healthcare system performed has identified a number of measures that could very effectively and efficiently contribute to the fulfilment of the overall Program goals – i.e., improved quality and efficiency in the system – while also having significant environmental co-benefits. Summarized measures proposed by ESSA that are included in the Program Action Plan are:

Measures important for avoiding potential negative environment related impacts and maximizing potential environment-related benefits of the proposed Program:

- TA to the Agency for Quality and Accreditation in Health Care and Social Welfare as part of the implementation of hospital accreditation and establishment of operational monitoring for quality and accreditation standards.

Measures in the Program which proactively address environment-related priorities and opportunities within the healthcare sector:

- TA to the Agency for Quality and Accreditation in Health Care and Social Welfare in establishment of fully operational monitoring of the hospitals’ compliance with adopted mandatory quality standards;
- TA to the MoH in its role of coordinator and facilitator of preparation and implementation of EE projects in the HealthCare sector;

42. In addition the ESSA recommended the strengthening of the Croatian State Office for Radiation and Nuclear Safety in its capacity in preparing and implementing projects that would improve radiological safety within the medical facilities.

FINDINGS FROM THE CONSULTATION PROCESS

43. The public consultation process included several steps. In the initial preparation phase, representatives of the key stakeholders were engaged individually, in form of series of meetings. The stakeholders included among others: Agency for Quality and Accreditation in Health Care and Social Welfare, Ministry of environmental and nature protection as well as Environmental Protection Agency, Central Hospital Zagreb and respective departments dealing with environmental and social issues, medical waste management companies, State Office for Radiological and Nuclear Safety, Ministry of Health, Sanitary Inspection, Public Health Institutes, Croatian Institute for Health Insurance, National Institute for Public Health and others. The objective of the meeting was to identify: the appropriate scope of the ESSA, the main challenges of the present situation relevant for the Program, the main challenges which will probably be faced during the implementation of the foreseen Program's activities; potential modification and upgrading of the Program that could make it more effective and efficient in its goal of Improving Quality and Efficiency of Health Services in Croatia. The scope of ESSA was shaped based on discussion with the stakeholders and identified issues. After preparation of the first draft the key findings and recommendations were discussed again with the respective stakeholders in the form of meetings and findings and recommendations reconfirmed. The final draft ESSA document was disclosed to wider public through the web page of the MoH in January 2014 aimed at communicating its content to interested and/or concerned public. The ESSA team presented through a public presentation and discussion the final draft ESSA in the MoH premises on January 5th, 2014. The consultation process confirmed the findings of ESSA and no comments or suggestions for changes were received.

Annex 7: Integrated Risk Assessment

CROATIA: IMPROVING HEALTH SYSTEM QUALITY AND EFFICIENCY

PROGRAM RISKS					
Technical Risk	Rating:	Moderate			
Description: The wide range and complexity of reforms proposed in the Government program (2012–2020) may strain the capacity of the Ministry of Health to implement them effectively. Given the complexity of reforms proposed in the Government program, the expected results may take longer to materialize than anticipated and may not be seen before the end of the proposed four-year operation.	Risk Management: The proposed operation would: (i) support a subprogram with more limited scope within the larger program; (ii) during the preparation stage, an implementation plan, timeline, and monitoring and evaluation system was designed to ensure that the reforms are implemented in a timely fashion; and (iii) in addition, key actions have been included in the Program's Action Plan, agreed with the Republic of Croatia at the outset of the Program.	Resp.: Bank, Client Stage: Implementation Due Date: Recurrent Status: In progress			
So far, hospital participation in the Ministry of Health's centralized procurement initiative has been voluntary. If participation rates in the future are low and hospitals choose to continue decentralized procurement, this could threaten the effectiveness of a vital intervention that has successfully yielded considerable savings for the hospital sector.	The Government of Croatia enacted legislation allowing the central government to take control of county hospitals. Reforms such as centralized procurement and hospital rationalization are being expanded during this window of opportunity.				
The proposed operation will be a one-time investment in the health sector. It may not be possible for the Ministry of Health to sustain this investment.	The proposed operation would introduce reforms aimed at improving the quality and efficiency of the health sector. It would not increase the recurrent expenditures of the Ministry of Health. Structural changes recommended by the rationalization master plan require one-time additional investments from extrabudgetary sources other than the proposed operation. However, the outcome of these investments is expected to be lower infrastructure maintenance and other costs.				
Fiduciary Risk	Rating:	Moderate			
Description: HZZO budget allocations are reduced mid-year thereby reducing the amounts reimbursed to hospitals. Hospitals are not informed in a timely manner of these reductions, thereby creating serious financial and fiscal constraints.	Risk Management: The mid-year budget revisions should be immediately shared with all involved budget institutions, particularly hospitals. This will allow hospitals make in-year adjustments to financial plans and budgets in an effort to limit entering into new obligations which may not be adequately supported.	Resp.: Client Stage: Implementation Due Date: December 31, 2019 Status: Not yet due			
The process of preparation of technical specifications is lengthy. This results in a long time of preparation and launching the tender procedures	Preparation and implementation of a realistic plan for preparation of technical specification and tender documents is well in advance. Contemporary methods and techniques will be used for preparation of non-restrictive, well-defined technical specifications, based on relevant characteristics and/or performance requirements, in order to promote broadest possible competition				
	Resp.: Client	Stage: Implementation	Due Date: December 31, 2015	Status: Not yet due	

Lack of contract administration and monitoring system	Development of an adequate contract administration and monitoring system, including defining the process and capacity needed, the evidence of contract performance with regard to time, quality and cost, inspection of quality of the goods and services delivered, timeliness of payment and effective contractual dispute resolution, as applicable, and enforcement of contractual remedies.			
	Resp.: Client	Stage: Implementation	Due Date: December 31, 2015	Status: Not yet due
Environmental and Social Risk	Rating: Moderate			
Description: As a polluter, the sector is the producer of medical waste and point source of air pollution originating from its heating systems and incinerators. In addition, it is recognized as sector that consumes significant amounts of energy and water.	Risk Management : The potential risks like deterioration in performance of the health facility network due to Program is very improbable, as Program supports introduction of more rational management, better monitoring and control within system, which all can only lead to improved environment-related behavior. The good planning of rationalization of health care facility network implementation will actually create opportunities for system improvements through possible implementation of energy efficiency and resource management measures during design phase.			
	Resp.: Client	Stage: Implementation	Due Date: Recurrent	Status: Not yet due
Given the current political context, potential social impact might be associated with the planned health service rationalization which might meet certain amount of resistance among different stakeholders.	The mitigation measure that the ESSA underlines is the importance of transparency, outreach, participatory approach, consultations with wide range of stakeholders and public information campaign to promote the benefits that the Program would bring to the consumers/patients and wide public. Additionally, measures will be taken to address the issue of socioeconomic inequalities such as regional disparities that exist in Croatia between urban and rural areas through an adequate collection of data at the county level and their monitoring under the Program.			
	Resp.: Client	Stage: Implementation	Due Date: Recurrent	Status: Not yet due
Disbursement-linked indicator risks	Rating: Moderate			
Description: Non-achievement of DLIs will slow disbursements and adversely affect counterpart commitment.	Risk Management: DLIs and targets were identified in consultation with the Ministry of Health to ensure that DLIs are achievable. The final list of DLIs includes intermediate outcomes that can be achieved at various stages of the reform. Furthermore, some DLIs could be prorated so that partial achievement of a DLI would allow corresponding payment, and catching up in the subsequent year would allow disbursement of the outstanding DLI value.			
	Resp.: Client	Stage: Implementation	Due Date: Recurrent	Status: Not yet due
Verifying DLIs for health reform may be challenging.	Only DLIs with feasible and robust monitoring and verification protocols were included. In addition it was agreed that, if needed, the Bank will request assessments or audits by independent agencies acceptable to the Bank to verify the data supporting the achievement of one or more DLIs.			
	Resp.: Client	Stage: Implementation	Due Date: Recurrent	Status: Not yet due
OVERALL RISK RATING	Overall, the risk rating for the proposed operation is moderate . Implementation capacity in Croatia is relatively strong, and the assessments suggest that country systems are quite robust as Croatia acceded to the EU.			

Annex 8: Program Action Plan

1. The proposed Program action plan addresses the key gaps identified by the technical, fiduciary, environmental, and social assessments in support of Program implementation. The major gaps identified in the health system are: (a) the inadequacies of the existing facilities (mostly hospitals) to respond to new health technologies and consequently to new health needs, (b) the lack of quality control mechanisms to improve and increase quality standards, and (c) the need for greater efficiency to respond to the growing demand for health services (aging of population) while ensuring financial sustainability of the health care system.
2. Despite the health sector strengths and good health outcomes in many areas, the assessments noted that primary health care services do not address the expected number of problems, resulting in a relatively high referral rate (DLI 9), a higher-than-normal number of inpatient services compounded by a lack of differentiation between acute and long term care (DLIs 1 and 2), a limited number of specialized secondary outpatient services that could provide routine health care services and outpatient medical procedures and surgeries (DLI 4), and limited quality control mechanisms in place (DLIs 5, 6, 7, and 10). In addition, the difference between secondary and tertiary health care services is not well defined; tertiary hospitals are delivering some services that could and should be delivered by secondary-level health care services. Finally, hospital managers have limited capacity and tools to improve financial performance of their hospitals (DLIs 3 and 8). To tackle these problems, it is proposed to: (a) implement a hospital rationalization plan; (b) develop EU proposals to mobilize resources to finance investments in support of the hospital rationalization process, including feasibility and pre-investments studies; (c) design protocols and tools to implement technical audits and other quality control mechanisms; (d) design protocols to improve management and increase efficiency; and (e) communications campaigns to the population, health workers and stakeholders.
3. The implementation of the Government program requires a strong institutional framework to improve the quality and efficiency of the health services. The health sector, which is decentralized by nature, is prone to governance and accountability challenges. To deal with the sector fragmentation, increase governance and create the conditions to implement the Hospital Master Plan, the Government of Croatia re-centralized (under managerial authority of the Ministry of Health) all hospitals in April 2013. It is expected that some hospitals will be returned to local authorities after the hospitals become financially consolidated and adjusted within the redefined institutional architecture, in line with the Master Plan.
4. In terms of environmental aspects of the reform, as a new EU member, Croatia will need to implement a comprehensive Environmental Management System as a framework. The first step for a more comprehensive environmental management system would be through the hospital accreditation which includes important indicators like waste management, energy efficiency, hospital infection, occupational health, etc. For successful implementation, awareness raising and training of the staff in hospitals, MoH and AQAHs, support to performance monitoring and control and reporting should be facilitated. This kind of support will also be needed for addressing Radiological and Nuclear Safety. Measures required for improvement of the situation includes acquiring missing equipment, modernization of the obsolete equipment, education and training of the staff, preparation of the Standard Operational Procedures guaranteeing maximum level of radiation safety.
5. In the area of Energy Efficiency (EE), initial training of potential heads of EE teams in the Ministry and all major hospitals, prepared a pipeline of EE projects for the Croatian health sector. All these present a solid foundation for further development and scaling up of EE activities and need to be included in all the feasibility and design studies to implement the hospital rationalization.

6. The implementation of the Government program will have potential impact on four main social areas:
 - a. internal and external resistance to changes foreseen by the Government program, that will require an effective public awareness and communication outreach of the reform measures and their overall advantages and fairness;
 - b. social inclusion and equity in access to the health care services. The planned rationalization of the health facility network is designed to create new resource allocation in health care which could decrease regional disparities in accessibility of health services for targeted groups and needed services such as new care by certain professionals, new diagnostic procedures or therapies, etc. Also, proposed changes are not expected to deepen the existing inequalities in health status outcomes between different income-level groups;
 - c. social accountability of the health care system. The Program supports accountability mechanisms by publishing in the MoH website results of the technical audits, and results of the centralized procurement, but also implementing a “white phone” allowing patients to elicit their complaints on health workers or any other complaint in relation to realizing their right to health care; and
 - d. potential impact on the employees – medical and non-medical staff within the reformed system that will require a program to retrain health workers to minimize the negative impact of the reform.
7. The Program Action Plan also includes measures to address some fiduciary challenges, namely:
 - a. The mid-year budget revisions should be immediately shared with all involved budget institutions, particularly hospitals. This will allow hospitals make in-year adjustments to financial plans and budgets in an effort to limit entering into new obligations which may not be adequately supported through the original budget plan.
 - b. The MoF-MoH hospital financial rehabilitation plan should include new measures to improve the hospitals’ ability for the management of obligations and liabilities (consistent with the PPA) and to improve the effectiveness of revenue management.
 - c. The HZZO should immediately update reimbursement allocations and inform hospitals of any changes to the Diagnoses Related Groups (DRG) financing system, particularly in the event of downward budget revisions.
 - d. Implement the findings from the HZZO Department for Control and from the State Audit Office and ensure proper monitoring for adequate resolution of identified issues.
 - e. Preparation and implementation of realistic plan for preparation of technical specification and tender documents well in advance including the use of contemporary methods and techniques, for preparation of non-restrictive, well-defined technical specifications, based on relevant characteristics and/or performance requirements, in order to promote broadest possible competition.
 - f. Development of an adequate contract administration and monitoring system, including defining the process and capacity needed, the evidence of contract performance with regard to time, quality and cost, inspection of quality of the goods and services delivered, timeliness of payment and effective contractual dispute resolution, as applicable, and enforcement of contractual remedies.

- g. Support the continuous and sustainable development of the capacity of staff in procurement and contract management, both in the Ministry of Health and the relevant hospitals, responsible for the joint procurement.

Table 19. Program Action Plan

Action Description	DLI	Due Date	Responsible Party	Completion Measurement
1. Completion of the hospital rationalization plan		February 2014	MoH	Final Report approved by MoH
2. Expansion of the centralized procurement system	X	October 2014	MoH	Framework contracts
3. Establishment of a quality control mechanism and define related quality and efficiency control protocol for technical audit of hospital	X	September 2014	MoH AQAHs HZZO	Protocol and tools available for technical audit
4. Establishment of a sentinel event surveillance system	X	December 2014	MoH AQAHs HZZO	Surveillance system in place and first reporting available
5. Feasibility and pre-investment studies for “hospital reshaping schemes”	X	TBD	MoH	Feasibility and preinvestments studies for two “hospital reshaping schemes” completed
6. Training in preparation of applications for EU funds including EE proposals		TBD	MoH	Training report
7. Technical and project documentation and preparation of applications for EU funds		June 2015	MoH	Sub-Project proposals
8. HZZO Department for Control has: (a) conducted regular inspections of hospitals under the Program (b) conducted specialized reviews based on risk assessments or significant complaints regarding health services provided		Recurrent	HZZO	Inspection and supervision reports
9. Internal financial audit units functioning in tertiary hospitals (increased in coverage by 20% each year over 5 years of the Program)		Yearly	MoH Hospitals	Financial audit reports
10. Establishment and implementation of Program for improvement of Energy efficiency in the Healthcare sector and preparation of projects for EU funds adsorption		June 2015	MoH	Program Report
11. Establishment and implementation of a plan for education and training for radiological and radiotherapy safety		June 2015	MoH	Plan Report
12. Public disclosure of best-performing hospitals based on technical audit in the preceding calendar	X	Recurrent	AQAHs MoH	Disclosed reports

year				
13. Public awareness and communication campaign about the health sector reform		December 2014	MoH	Communication campaign evaluation report
14. Rationalization of expenditures for pharmaceuticals		June 2015	HZZO	Study report
15. DRG system. Review of the costing of each group based on some pilot costing system		June 2015	HZZO	Review report
16. Hospital management training		June 2015	MoH	Training Report
17. TA to AQHAS in foreseen implementation of hospitals' accreditation (assistance in preparation of accreditation scheme legislation, accreditation, environmental guidance, trainings, etc.)		March 2015	AQAHs	Final Report approved by MoH
18. TA to AQAHs in establishment of monitoring system of the hospitals' compliance with adopted mandatory quality standards.		June 2015	AQAHs	Final Report approved by MoH

Annex 9: Implementation Support Plan

1. The implementation support plan (ISP) is based on the implementation support guidelines for Program-for-Results operations. The borrower is responsible for the Program's overall implementation, including its technical aspects. The Bank implementation support will focus on:
 - Review implementation progress and achievement of Program results and DLIs;
 - Provide technical support to the client for implementation of the Program Action Plan, the achievement of DLIs and other results;
 - Monitor systems performance to ensure their continuing adequacy including the review of Program monitoring reports, audit reports, and field visits;
 - Provide support for resolving emerging Program implementation issues;
 - Monitor changes in risks to Program-for-Results and compliance with legal agreements.
2. The Bank will be working with other key stakeholders including partners supporting the Government's program. The task team will be primarily responsible for:
 - Monitoring and evaluation: Providing technical support to build capacities for DLI monitoring and verification protocols. The Bank task team would routinely monitor progress towards DLI achievement based on the agreed monitoring and reporting arrangements, including the Program's progress reports and the DLI Verification Protocols. Upon achievement or partial achievement of a DLI, the Ministry of Health would provide the Bank task team with evidence as per the Verification Protocol. Following the Bank's review of the complete documentation, including any additional information considered necessary and requested from the Ministry of Health or other agencies to verify achievement of the DLI, the Bank would send an official communication to the Ministries of Health and Finance as to the achievement of the DLI(s) and the level of Program financing proceeds available for disbursement against each particular DLI, including any partial disbursement for the scalable sub-allocation of DLIs 1, 3, 4, 5, 6, 7, 8, 9 and 10.
 - Environmental and social: In relation to environment the team will focus on the implementation of energy efficiency interventions in the healthcare sector, and preparing and implementing of projects to improve radiological safety within the medical facilities. Regarding social aspects, the team will focus on four main areas: a) internal and external resistances to changes foreseen by the Program; b) social inclusion and equity in access to the health care services; c) social accountability of the health care system, and d) potential impact on the employees – medical and non-medical staff within the reformed system.
 - Fraud and corruption: Monitoring the implementation of the agreed fraud and anticorruption measures under the Program and providing guidance on resolving any emerging issues.
 - Procurement: The Bank task team would focus on the implementation of the mitigation actions for the risks included in Annex 5 with special focus on preparation of non-restrictive, well-defined technical specifications (based on HTA) and tender documents well in advance; ensure the continuous and sustainable development of the capacity of staff in procurement and contract management, and development of an adequate contract administration and monitoring system, including defining the process and capacity

needed, the evidence of contract performance with regard to time, quality and cost, inspection of quality of the goods and services delivered, timeliness of payment and effective contractual dispute resolution, as applicable, and enforcement of contractual remedies.

- Financial Management: The Bank's team will pay particular focus (i) on the establishment of functioning internal audit units for large hospitals under the Program, (ii) the level of reimbursement payments from HZZO to hospitals and whether adjustments to reimbursements have been shared in a timely manner with hospitals and if hospitals have adjusted their budget and financial plans to account for these adjustments, (iii) the implementation of the regular control and supervision work plans of the HZZO's Service for Control Directorate, (vi) the implementation of significant audit recommendations (issued annually by the SAO) by the MoH and HZZO, respectively.
3. Most of the Bank's implementation support team member (technical, fiduciary, environmental and social systems, and fraud and anticorruption), are either based in the Croatia Country Office or in the region. This will ensure timely, efficient, and effective implementation support to the MoH and the regions.

Table 20. Main Focus of Implementation Support

<i>Time</i>	<i>Focus</i>	<i>Skills Needed</i>
<i>First 12 months</i>	Support capacity of the MoH/HZZO for DLIs monitoring and verification	M&E, technical, fiduciary
<i>12 months to closing</i>	Timely implementation of Program Action Plan	Fiduciary, social and environmental, technical, M&E

Table 21. Task Team Skills Mix Requirements for Implementation Support

<i>Skills Needed</i>	<i>Number of Staff Weeks</i>	<i>Number of Trips</i>	<i>Comments</i>
<i>Task Team Leader</i>	12	3	DC based
<i>Technical Consultant</i>	36	2	International
<i>M&E Consultant</i>	6	3	National
<i>Financial Management Specialist</i>	3	1	Region based
<i>Procurement</i>	3	1	Country based
<i>Environment</i>	2	1	Country based
<i>Social</i>	2	1	Country based
<i>Governance</i>	1	1	DC based

Role of Partners in Program implementation: N/A

CROATIA

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- SELECTED CITIES AND TOWNS
- COUNTY (ŽUPANIJA) CAPITALS
- ✖ NATIONAL CAPITAL
- ~~~~ RIVERS
- MAIN ROADS
- RAILROADS
- COUNTY (ŽUPANIJA) BOUNDARIES
- - - INTERNATIONAL BOUNDARIES

