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**Universal Health Coverage in Croatia:
Reforms to Revitalize Primary Health Care**

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Table of Contents

Preface to the second round of the Universal Health Coverage Study Series	7
Acknowledgements	8
About the Authors	9
Executive Summary	11
1. Introduction	13
2. Overview of Croatia’s Health System	14
3. Overview of Social Health Insurance in Croatia	16
4. Financial Sustainability of Mandatory Health Insurance—A Key Concern	19
5. Primary Care Prior to 2008: Evolution and Challenges	21
6. Primary Care Reforms in 2008 and Beyond: A Shot in the Arm	22
7. Conclusions ... and Looking ahead.....	33
Annex 1 Distribution of All Insured Nationally, Croatia, 2013–15	35
Annex 2 Information Environment for Primary Care	36

Table of Figures

Figure 1 Health Expenditure in Croatia, 2013	15
Figure 2 HZZO Revenue by Source, 2015	16
Figure 3 HZZO Insured Persons by Category, 2015	17
Figure 4 Number of Visits to Primary Care (excluding preventive checkups) and Home Visits by GPs	26
Figure 5 Ratio of Referrals to All Visits Minus Preventive Visits in General Practice/Family Medicine	27
Figure 6 Number of Adult Preventive Checkups Delivered in Primary Care	28
Figure 7 Number of Prescriptions and Average Expenditure per Prescription	29
Figure 8 Consumption of Medicines by Groups of Insured	30
Figure 9 Hospitalizations by Groups of Insured	31
Figure 10 Outpatient Hospital Services by Groups of Insured	32

Table of Tables

Table 1 Household Out-of-Pocket (OOP) Spending, 2014	13
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Abbreviations

CEZIH	Central Health Information System of the Republic of Croatia
DTP	Diagnostic Therapeutic Procedures, <i>Dijagnostičko Terapijski Postupci</i>
EU	European Union
GPs	General Practitioners
HTA	Health Technology Assessment
HZZO	Croatian Health Insurance Fund
IT	Information Technology
OOP	Out-of-Pocket

Preface to the second round of the Universal Health Coverage Study Series

All over the world countries are implementing pro-poor reforms to advance universal health coverage. The widespread trend to expand coverage resulted in the inclusion of the “achieving universal health coverage by 2030” target in the Sustainable Development Agenda. Progress is monitored through indicators measuring gains in financial risk protection and in access to quality essential health-care services.

The Universal Health Coverage (UHC) Studies Series was launched in 2013 with the objective of sharing knowledge regarding pro-poor reforms advancing UHC in developing countries. The series is aimed at policy-makers and UHC reform implementers in low- and middle-income countries. The Series recognizes that there are many policy paths to achieve UHC and therefore does not endorse a specific path or model.

The Series consists of country case studies and technical papers. The case studies employ a standardized approach aimed at understanding the tools –policies, instruments and institutions– used to expand health coverage across three dimensions: population, health services and affordability. The approach relies on a protocol involving around 300 questions structured to provide a detailed understanding of how countries are implementing UHC reforms in the following areas:

- **Progressive Universalism:** expanding population coverage while ensuring that the poor and vulnerable are not left behind;
- **Strategic Purchasing:** expanding the statutory benefits package and developing incentives for its effective delivery by health-care providers;
- **Raising revenues** to finance health care in fiscally sustainable ways;
- **Improving the availability and quality of health-care providers;** and,
- **Strengthening accountability** to ensure the fulfillment of promises made between citizens, governments and health institutions.

By 2017, the Series had published 24 country case studies and conducted a systematic literature review on the impact of UHC reforms. In 2018 the Series will publish an additional 15 case studies. A book analyzing and comparing the initial 24 country case studies is also available: *Going Universal: How 24 Developing Countries are Implementing UHC Reforms from the Bottom Up*. Links to the Series and the book are included below.

Daniel Cotlear, D. Phil.
Manager and Editor
Universal Health Coverage Study Series

Links:

<http://www.worldbank.org/en/topic/health/publication/universal-health-coverage-study-series>
<http://www.worldbank.org/en/topic/universalhealthcoverage/publication/going-universal-how-24-countries-are-implementing-universal-health-coverage-reforms-from-bottom-up>

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Luka Vončina, a medical doctor and international health policy specialist, is a consultant to the World Bank on the UNICO project. From 2009 to 2011, he was head of pricing and reimbursement of medicines and medical products for the Croatian National Health Insurance Fund. He designed and implemented the Croatian national 2010 pricing and reimbursement reform, which

substantially increased the transparency and efficiency of the pricing and reimbursement process, and reduced expenditure while allowing innovative therapies. From 2012 to 2014, Luka worked for the Croatian government as assistant minister of health in charge of health services, reforms, inspectorates, and European Union funds. During his tenure, he designed and lead the successful 2013 joint hospital procurement reform, which allowed state-owned hospitals to form joint purchasing bodies for medicines, medical devices, energy, and other relevant purchases. The reform standardised the quality of procured goods and substantially reduced prices. During that period, Luka served on the management boards of the European Medicines Agency, several large Croatian hospitals, and the Standing Committee of the Regional Committee of the World Health Organization Regional Office for Europe. Since 2014, he has been an independent consultant to governments, international organizations, and industry in Albania, Bosnia and Herzegovina, Croatia, Georgia, Kazakhstan, Kosovo, Mongolia, Romania, Serbia, Saudi Arabia, and Ukraine. Most of his work is focused on hospital financing and procurement and pharmaceutical policy. Luka graduated as a Medical Doctor from the Zagreb School of Medicine, Croatia in 2002. He obtained a Master's in International Health Policy from the London School of Economics, as a Chevening scholar, in 2005; and he finalized his PhD in Biomedicine at the University of Split, Croatia, in 2013.

Executive Summary

Croatia enjoys good and improving health outcomes that compare favorably with neighboring countries with similar income levels. Health insurance coverage is mandatory and universal in Croatia, with no exclusions. All insured persons are entitled to a single benefits package of services. Households are well protected from the burden of out-of-pocket (OOP) spending on health, and health OOP spending in Croatia is below the EU average.

The Croatian Health Insurance Fund (HZZO) is the sole purchaser of health services, and purchases all individual health services delivered by both public and private providers. Primary care is provided mainly by private medical practices, while almost all hospitals are publicly owned and managed. Mandatory health insurance contributions made by employers and individuals are the main source of financing for health, and account for 76 percent of total financing.

The Croatian health system is under increasing financial pressure from escalating costs driven by expanding benefits that reflect advances in medical technologies and increasing demand for health services due to an aging population and a higher burden of chronic and noncommunicable diseases. At the same time, the share of contributors to the mandatory health insurance system is relatively small and is shrinking as the population ages. Only 34 percent of the insured population, the employed, make the full mandatory health insurance contribution of 15 percent.

This chapter describes and analyzes the supply-side reforms that have been implemented since 2008 that aimed to revitalize what has been described as a passive and low-impact primary care system. These reforms include a mix of organizational changes that precipitated a shift to delivering primary care services in teams, payment reforms that introduced stronger performance incentives and enabled IT investments to support better patient care by primary care providers, collaboration among primary care providers, and performance measurement. In addition, the reforms include pharmaceutical pricing and reimbursement reforms aimed at improving access to outpatient drugs and delivering better value from drugs spending.

The story this chapter tells is a positive one. The reforms have had a positive impact on primary care service delivery, including the delivery of preventive services and revitalized primary care functioning. Prescribing volumes in primary care have also been on the rise, indicating improved patient coverage, while costs of drugs have been continuously declining thanks to effective pricing regulations. In secondary care, hospitalizations have been declining and outpatient services have been on the rise, possibly indicating that ambulatory-sensitive conditions are less frequently treated by unnecessarily costly hospitalizations.

The poor consume substantially more curative services than the better off, with the exception of outpatient hospital consultations, where they consume more curative services on a per capita basis than the employed, but not the nonpoor non-employed. While the absence of data on health status and health needs hampers our ability to draw firm conclusions, the poor clearly benefit to a considerable extent from public spending on health in Croatia, and may have equal or better access to care. The likely policy mechanisms driving this are many, notably including the fact that the poor pay no copayments to access services.

Going forward, Croatia faces the challenge of broadening the health financing contribution base. Delivering better value from public health spending by improving the efficiency and quality of care will also remain a strong imperative for the Croatian health system. Managing the uptake of modern technologies in the benefits package will be a key part of the broader response to this concern. Improving quality, efficiency, and fiscal responsibility through active purchasing will also be key. This will require better information systems that can facilitate effective purchasing, oversight, and improved coordination among different stakeholders in the system, and more sophisticated analyses of all aspects of service provision.

1. Introduction

1. Croatia enjoys good and improving health outcomes that compare favorably with neighboring countries with similar income levels.¹ Health insurance coverage is mandatory and universal in Croatia, with no exclusions. All insured are entitled to a single benefits package of services. Households are well protected from the burden of out-of-pocket (OOP) spending on health. At approximately 12 percent of household spending, household OOP spending is lower than both the World Health Organization’s normative 15 percent threshold for “good” financial protection and the European Union (EU) average of 14 percent.² The poorest quintile of households spends 3.9 percent of total household income on health compared to 2.9 percent of the richest quintile (see table 1).

Table 1 Household Out-of-Pocket (OOP) Spending, 2014

Household OOP in 2014	Poorest 20%	Next 20%	Middle 20%	Next 20%	Richest 20%
Share of total income (%)	3.9	2.9	2.5	3.0	2.9

Sources: Croatian Bureau of Statistics 2014, and results of the 2014 Households Budget Survey; http://www.dzs.hr/Hrv_Eng/publication/2015/SI-1557.pdf.

2. Public health spending in Croatia is higher than regional comparators at similar income levels, although lower than the EU average. Croatia’s health system is under pressure from an aging population. The share of the population over age 65 is projected to increase to over 20 percent in 2020, up from 11 percent in 1990.³ Aging is likely to increase demand for health services, because the burden of chronic and noncommunicable diseases will increase, while higher dependency ratios make it harder to raise revenues for health. At the same time, advances in medical technologies continue to put pressure on public spending on health in Croatia.

3. The main universal health coverage challenge facing Croatia is therefore to deliver better value from public spending on health by improving the quality and efficiency of the health system and ensuring its financial sustainability. Much of this agenda involves reshaping and strengthening first-level care and a specific focus on improving primary and secondary prevention and promoting healthy aging.

4. This chapter describes and seeks to take stock of a cluster of supply-side reforms that aimed to revitalize what was described by the Croatian Public Health Institute as a passive and low-impact primary care system. The cluster of reforms, which include a mix of organizational, primary care provider payment and pharmaceutical pricing and reimbursement reforms, and enabling information technology investments, were implemented starting in 2008.

5. The chapter is organized as follows. Section 2 provides an overview of Croatia’s health system; Section 3 provides an overview of Croatia’s Social Health Insurance System; Section 4 discusses the financial sustainability challenges facing the Social Health Insurance System; Section 5 presents the evolution and challenges of primary care in Croatia before 2008; Section 6 discusses the primary care reforms implemented from 2008 onward and reviews the available evidence on its impact, including on how poorer regions and individuals may have benefited; and Section 7 concludes and outlines the way forward.

2. Overview of Croatia's Health System

6. The organization of Croatia's health care system dates back to the early 1990s, when the country declared independence from socialist Yugoslavia. Ownership and management of primary care facilities is decentralized to the level of counties (regions).⁴ Financing the delivery of services is centralized and organized based on social health insurance principles.

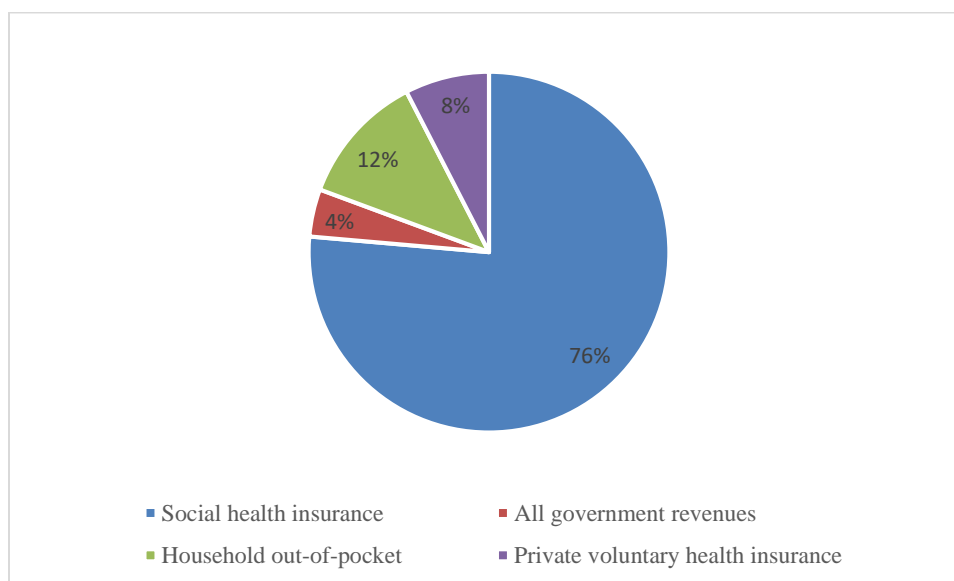
7. The Croatian Health Insurance Fund (HZZO) is the single purchaser of health services, and purchases all publicly financed individual health services that are delivered through both public and private providers. Although formally independent of the Ministry of Health, the central government effectively controls it since it appoints its director and board of directors (on the recommendation of the minister of health) and has the authority to dismiss them. The HZZO is responsible for managing the mandatory health insurance scheme and contracting health care providers across all levels of care. As the main purchaser of health services, the HZZO plays a key role in establishing performance standards and the price-setting of services. The HZZO is also responsible for the distribution of sick leave compensation, maternity benefits, and other allowances as regulated by the Croatian Health Insurance Act.

8. The Ministry of Health is responsible for health policy including regulation and governance of health care providers, health system financing, and ultimately the provision of services to the population. Its primary agenda is the provision of accessible, high-quality services to patients. Efforts to rationalize and increase system efficiency form part of an important long-term objective: securing the financial sustainability of the system.

9. The central government provides some funds through the Ministry of Health for the administration of national institutes (emergency medicine, telemedicine, public health, and others), implementation of several public health programs (cancer screening) that are not delivered through HZZO-provider contracts, and capital investments in all public institutions, as the cost of these is not accounted for in payments for services. Part of the funds for capital investments is managed at the discretion of the Ministry of Health and part is devolved, as mentioned, to regions.

10. Local governments (counties) are responsible for the maintenance of infrastructure and capital investments in primary health care centers and minor local public health programs. Revenues for those functions (excluding public health programs) are predominantly derived from the state budget, and to a lesser extent from local taxes. Counties provide some additional funding for health care out of their budgets, but to a minor extent. The bulk of these funds is used for small-scale local public health programs and additional capital investments, not purchasing services. In total, including both public and private sources of financing, Croatia spent US\$4.31 billion (HRK 24.6 billion⁵) on health in 2013. Social health insurance contributions made by employers and individuals were the largest source and accounted for 76 percent of overall financing. By contrast, at 4.3 percent, general government revenues accounted for a relatively small share of financing for health.

Figure 1 Health Expenditure in Croatia, 2013



Sources: Author's calculations based on the Croatian Institute of Public Health, System of Health Accounts, 2013, <http://www.hzjz.hr/novosti/izvjesce-o-financijskim-zdravstvenim-pokazateljima-za-hrvatsku-u-2013-godini-prema-metodologiji-sustava-zdravstvenih-racuna/>; Croatian Institute of Public Health, SHA calculations, 2013, http://www.hzjz.hr/wp-content/uploads/2016/01/Bilten_SHA_2013_1_1.pdf; Ministry of Finance, State budget in 2013, <http://www.mfin.hr/hr/drzavni-proracun-2013-godina>.

11. Primary care is organized in the family medicine model. All citizens must register with a doctor of their choice and whom they can change. The family medicine specialist acts as a gatekeeper for almost all citizens. However, primary care pediatricians are the chosen doctors and gatekeepers for children, and gynecologists for pregnant women. Dentists and laboratory services are also available at the primary level.

12. Provision of primary care is predominantly private, although financing for primary care services is predominantly public. Care is provided in a dual public-private system—by public institutions that employ doctors and nurses (primary health care centers) owned by regions, and by private medical practices (single doctor owner, who in addition employs one nurse). Private medical practices operate as concessionaires; that is, regions award concessions or the right to offer primary care services in the public system. Around 40 percent of primary care medical doctors and nurses work in primary health care centers, while the remaining 60 percent operate as concessionaires.

13. Hospitals are predominantly publicly owned and managed; less than 5 percent are privately owned. The central government owns tertiary care hospitals. Ownership of other health care facilities is decentralized. Counties own secondary care general and specialized hospitals.

3. Overview of Social Health Insurance in Croatia

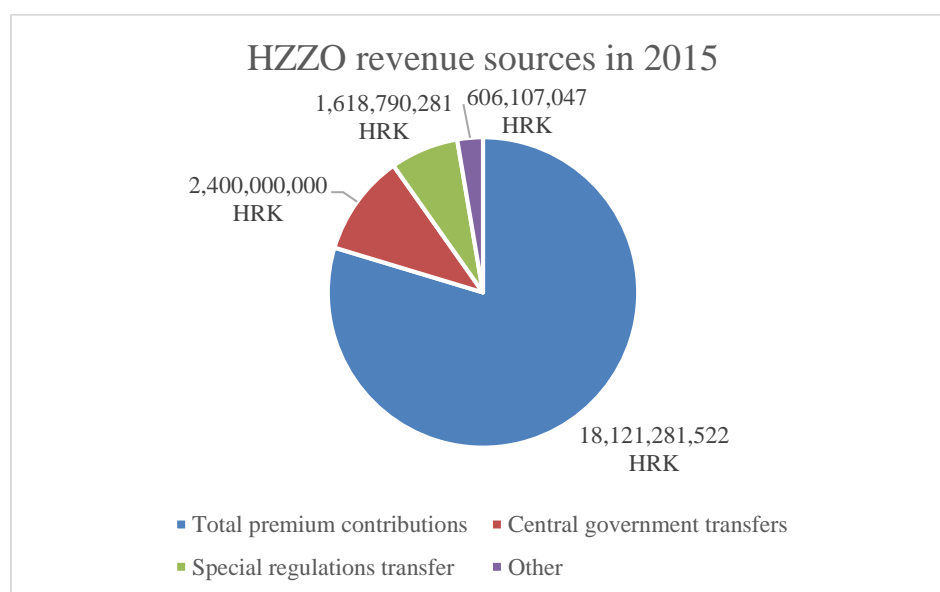
14. Health insurance has a long tradition in Croatia, dating back to 1922 when the Kingdom of Serbs, Croats and Slovenes founded the central office for insurance of workers in Zagreb. After the end of the World War II, during the socialist period, universal coverage was achieved and health financing was organized through a decentralized network of local public organizations called “self-management interest groups,” which collected funding from workers’ contributions and financed health care. Some redistribution of funding (from richer to poorer regions) did exist but was not substantial, and differences in standards and access to care were stark. The purchaser-provider split formally existed, even to the point of regular negotiations on funding, services, and development among these organizations and institutions providing health care, but no strategic purchasing took place because funding was, in essence, input based. In 1990, following independence, these local funding organizations were united in the Republic Institute for Health Insurance, which was transformed into the HZZO in 1993.

15. Participation in the HZZO-operated health insurance system is mandatory for all citizens as regulated by the Mandatory Health Insurance Act. The HZZO is the sole purchaser of public health services in Croatia, contracting both public health centers and private primary health care teams for primary care and hospitals. The HZZO is the most significant financing agent in Croatia, and accounts for over 97 percent of the financing for publicly financed health care services.

Sources of Financing for Social Health Insurance in Croatia

16. There are three main sources of financing for mandatory health insurance: payroll contributions for health insurance; transfers from the Ministry of Finance from general tax revenues and special regulations transfers, which include revenues from complementary insurance premiums (voluntary insurance covering copayments⁶); and copayments (figure 2).

Figure 2 HZZO Revenue by Source, 2015



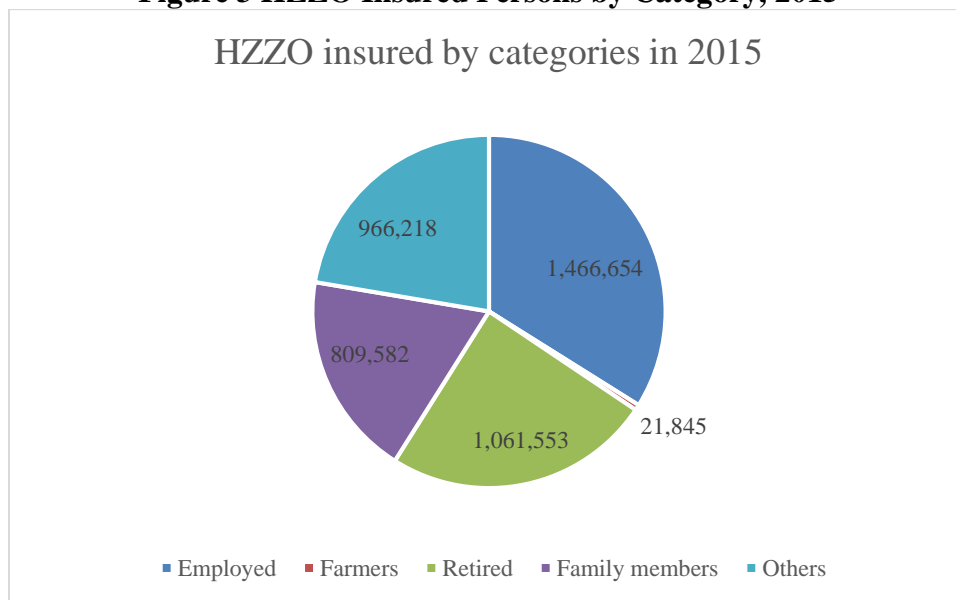
Source: Croatian Health Insurance Fund 2015.

17. At nearly 80 percent of mandatory health insurance revenues, individual payroll-based contributions for health insurance are the biggest source of revenue for HZZO. The contribution rate for mandatory health insurance is a 15 percent payroll tax, paid entirely by the employer on behalf of employees. The contribution rate for the self-employed is calculated on a sliding scale based on their reported income. The retired contribute 3 percent of their pensions or less depending on the amount of their pensions. Ministry of Finance transfers to HZZO are expected to cover insurance premium contributions for exempt groups. In addition to the costs of care for noncontributing groups, Ministry of Finance transfers also seek to cover the costs of delivering individual preventive health services for specific population groups (such as students).

Identification, Targeting, and Enrolment of Beneficiaries

18. All citizens are required to register for mandatory health insurance under the Mandatory Health Insurance Act. They can register as one of 28 defined categories of the insured, such as employed, retired, unemployed, farmers, and family members (figure 3). The unemployed, children, students, disabled who cannot work, war veterans, and others who qualify are exempted from making contributions.

Figure 3 HZZO Insured Persons by Category, 2015



Source: HZZO 2016.

19. Registering for mandatory health insurance is simple. For a majority of the population, this is an automatic process, as employers do this for their employees, and the Croatian Pension Insurance Institute does this for the retired when they retire. IT-system-based data exchange allows the HZZO to exchange financial data on pensions, earnings, and benefits with the Ministry of Finance. Some categories of insured, such as farmers and unemployed, must register for mandatory health insurance on their own, with documents supporting the grounds on which they register. Farmers and the self-employed are treated like companies, and pay health insurance contributions on the revenues they report. Tax authorities monitor compliance on insurance premium contributions (as with taxes) and levy interest and penalties in cases where the appropriate

insurance contributions are not made on time. Universal health coverage has been a feature of the health system in Croatia for so long that no systematic media campaigns or other strategies are needed to promote either registration for mandatory health insurance or awareness of insurance benefits. Annex 1 presents the distribution of all insured nationally during 2013–15, and Annex 2 presents a more detailed overview of the information environment for primary care.

20. All those insured are provided a mandatory, permanent HZZO health insurance card. If the insured changes category (for instance from employed to unemployed), they do not need a new card. All contracted providers are connected to a network via an information technology (IT) system that contains a regularly updated database of all insured and through which HZZO monitors utilization of health services in real time.

Purchasing Services

21. All providers in the public health network, regardless of public or private ownership, are directly contracted by the HZZO. The HZZO purchases primary care services based on contracts with primary health care providers. Primary care providers are paid through a combination of capitation and fee-for-service payments (called Diagnostic Therapeutic Procedures, *Dijagnostičko terapijski postupci* [DTP]), and quality and performance bonuses, with the following elements:

- Capitated amount per enlisted patient (DTP codes used to report services provided)
- Fixed payment for running costs, such as heating and nurse's salary
- Fee-for-service payments for selected services (DTP codes)
- Bonus for quality indicators
- Bonus for Key Performance Indicators.

22. With few exceptions, hospitals in Croatia are publicly owned. Public hospitals are contracted by HZZO to deliver hospital services. Both terms of service delivery and payment terms are defined in these contracts. Hospital payments are based primarily on diagnosis-related groups for inpatient care and fee-for-service for outpatient care and day services.

Benefits and Benefits Management

23. All insured are entitled to a single benefits package delivered at the same network of providers for primary care and hospitals. The well-off can choose to pay more for better “hoteling” services at hospitals (for example, a private room with TV), but there is no differentiation on the content of care based on ability to pay for benefits package services.

24. The Croatian Health Care Act defines a generous benefits package through a negative list of services.⁷ The Mandatory Health Insurance Act does not specifically define which services are covered, and has never been systematically revised. In practice, the list of covered services has grown as new services have been included in HZZO's price lists (for reimbursement) of services and as new medicines have been added to HZZO's medicine reimbursement lists.

25. New services and medicines to be included are decided on by technocrats based on their knowledge, taking into consideration scientific evidence (HZZO-appointed committees or consultations with national reference centers) and their cost implications. This is a continuous

process implemented in HZZO's management board sessions, and fiscal impact is always considered. The management board must be informed of the expected costs of all services, medicines, and consumables that are to be financed by the HZZO. The health technology assessment process for services and consumables could be much improved in terms of its regulatory structure and transparency by introducing defined inclusion criteria. By contrast, the HTA process is better regulated for the inclusion of new medicines in the benefits package via a "Bylaw on the introduction of medicines to HZZO's lists of medicines." This bylaw lists the criteria for inclusion and elaborates the procedure in detail.⁸

26. In primary care, the list of services that must be covered through capitation payments to providers is defined in HZZO contracts. Practitioners report on the provision of these services monthly through the central health care IT system. The HZZO employs controllers who review these reports to make sure they are accurate. In practice, they focus their reviews on services charged through fee-for-service payments to detect fraud.

27. High-cost services are primarily an issue in hospitals. Hospital costs (the total cost of the provision of secondary and tertiary care) are managed through preset hospital budget ceilings. That means a hospital can invoice the HZZO for services (using diagnosis-related groups for acute care, and fee-for-service for day hospital care and outpatient services) only up to a certain limit. The HZZO will no longer pay invoices once the ceiling is reached. The underlying expectation is that budget ceilings would incentivize hospitals to ration the provision of services, and manage their costs, which has not been borne out in practice.

4. Financial Sustainability of Mandatory Health Insurance—A Key Concern

28. From the revenue collection perspective, the major issues affecting the long-term financial sustainability of the system are a narrow base of contributors (the employed) that will shrink further over time because the population is aging rapidly; nontransparent cross-subsidization of noncontributors from general tax revenues; and the potentially large informal economy in Croatia, because informal work is not reported and therefore not subject to health insurance contributions.

29. Only 34 percent of the insured population, the employed, make the full mandatory health insurance contribution of 15 percent. Farmers and the self-employed are subject to similar mandatory health insurance contribution rates as the employed on reported incomes. Retired persons, who account for 25 percent of the insured, make substantially smaller mandatory health insurance contributions, set at 3 percent of pension conditional on the size of their pension. Nearly 42 percent of the insured (1,812,816 persons) do not pay any mandatory health insurance contributions but are insured for free, as they are exempted from making contributions. The contribution base is set to shrink further with Croatia's rapidly aging population.

Box 1 List of Groups Exempt from Paying Mandatory Health Insurance Contributions:

- Retired persons with pensions under the average national salary
- The unemployed
- Children (under 18)
- Students
- Trainees financed through government economy-stimulating measures
- Persons in voluntary military service
- War veterans
- The disabled
- Persons caring for disabled war veterans
- Family members if financed by insured persons and if not insured

30. The HZZO estimates that Ministry of Finance transfers from the general budget to HZZO to cover the costs of care for noncontributing insured have been considerably below contribution obligations specified in the Health Insurance Act. Prior to 2015, when HZZO's financing was integrated into the State Treasury and the Croatian State Budget, transfers from the general budget to the HZZO budget to cover cost of care for the noncontributing insured were annually reduced. The HZZO's estimate of the shortfall in contributions relative to the provisions specified in the Health Insurance Act is HRK 6,609,976,789 in unpaid funds between 2012 and 2015. To put this in perspective, this estimate of unpaid contributions is equivalent to about 36 percent of the HZZO's revenues in 2016. This trend with Ministry of Finance contributions continued in 2016.

31. The average transfer per noncontributing insured person relative to health insurance expenditures per insured person highlights the extent of cross-subsidization between the contributing and noncontributing insured. To illustrate, in 2014, according to Ministry of Health data, the Ministry of Finance transferred HRK 1,221,986,035 to the HZZO, so the average transfer per noncontributing insured per year⁹ (the retired are included in this figure because few have pensions over the average salary) for that year amounted to HRK 425.¹⁰ As the total HZZO expenditure (including primary care, outpatient medicines, and all other expenditure items such as hospital care, sick leave compensations, and so forth) in 2014 amounted to HRK 22,836,871,790 for all 4,345,435 insured, average HZZO expenditure per insured person was HRK 5,255. This clearly highlights that the financing of their care predominantly relies on cross-subsidization from the contributing insured. The transfers per noncontributing insured person accounted for about 8 percent of average HZZO spending per insured person.

32. Estimates of undeclared economy and work in Croatia range widely from 4.18 percent to 30.4 percent of GDP.¹¹ Workers do not pay taxes or mandatory health insurance contributions on the share of their income earned through informal employment or enterprise. Individuals who have no formal income can register for free mandatory insurance as unemployed. As discussed, the Ministry of Finance covers a relatively small share of HZZO's cost for the mandatory health insurance of unemployed through general taxation transfers to the HZZO. In addition, the Ministry of Finance transfers additional funds to the HZZO to cover the cost of complementary health insurance premiums that cover the cost of copayments to those registered as unemployed. So, informal workers pay no proportion of their income for health insurance, and access health care

free at the point of use, while others may underreport their incomes and minimize their mandatory health insurance contributions.

33. On the benefits side, mirroring advances in medical technology, the package of reimbursed products and services has been growing over time with limited regard to the revenues available, and is comparable to the benefits packages of much more affluent countries. The Ministry of Health and HZZO have not yet established a system that would adequately address fluctuating revenues in terms of explicitly prioritizing costly treatments or medicines to address funding shortfalls.

34. These concerns are further exacerbated by inefficiencies in the model of service delivery driven by a hospital-centric model of service delivery that does not take advantage of efficiency-enhancing modern technologies and is ill-suited to the needs of an aging population, with its concomitant rise in chronic and noncommunicable diseases and multiple morbidities. However, the inefficiencies in the Croatian health system are relatively limited, and efficiency gains alone are unlikely to solve the long-term financial sustainability challenges facing the mandatory health insurance system.

5. Primary Care Prior to 2008: Evolution and Challenges

35. Following the breakup of Socialist Yugoslavia in 1993, the Ministry of Health reformed the inherited primary care financing and organization models. Budgets were replaced by capitation, with no fee-for-service payments, and all citizens were required to register with individual general practitioners (GPs). In addition, the Ministry of Health allowed for privatization of individual primary care doctors' offices. Within several years, most primary care doctors chose to become private entrepreneurs contracted directly by the HZZO, because this meant better incomes compared to health center salaries. By the mid-1990s, over 80 percent of private practices in primary health care operated as microentrepreneurs in leased facilities. Health centers, formerly exclusive providers of all primary health care services, with salaried employees and public health functions, transformed into administrative organizations that leased premises and organized some forms of care such as laboratory services, community nursing, and radiological diagnostics.

36. The shift to capitation payments and privatization of primary care offices were intended to provide physicians with direct incentives to provide better-quality, more efficient care, as patients were expected to vote on both with their feet. At the same time, as gatekeepers, primary care doctors were charged with the influential role of coordinating and rationing the provision of health care services. Patients were not allowed to access hospitals without primary care referrals (unless in emergencies), and only primary care doctors were allowed to prescribe reimbursed medicines.

37. There are few detailed analyses of the effects of these reforms. However, reports from the Croatian Institute of Public Health (Hrvatski zavod za javno zdravstvo) indicate that the reforms in fact adversely affected the provision of care and increased overall health system expenditure. Preventive services and home visit volumes plummeted, and referrals to secondary and tertiary health care providers increased substantially. In addition, the Croatian Institute of Public Health reported that, with respect to primary care service provision, between 1990 and 2004, the number

of GP home visits declined by 35 percent, and the number of GP preventive checkups declined by 72 percent; and between 1995 and 2004, the number of referrals increased by 29 percent.¹²

38. The contracts primary care doctors entered into with the HZZO at that time lacked detailed provisions on which procedures and services should have been performed under the monthly capitation payments and which should not. No national treatment guidelines or pathways were produced. In addition, the control system did not provide means for utilization review that would have monitored and evaluated care provision and referral patterns.

39. In the following years, the Ministry of Health responded by introducing several reforms attempting to improve primary care performance. In 2003, it introduced mandatory family medicine training requiring all GPs to specialize by 2015. Prior to that, general family medicine services were provided by doctors graduating from medical schools. In 2004, primary care doctors started to receive additional modest fee-for-service reimbursements for preventive checkups for adults over 45. As of 2005, doctors were in addition allowed to charge the HZZO for a restricted number of diagnostic services according to a fee-for-service schedule. The total funds in addition to the capitation payment may not have exceeded 7 percent of annual capitation (12 percent for GPs working in retirement or nursing homes). In addition, the HZZO introduced limits to allowed numbers of referrals and prescribing budgets adjusted by total number and age structure of patients in care. If doctors exceeded these, HZZO inspectors evaluated medical records and, if found inappropriate, charged fines.

40. These efforts, however, did not prove to be effective; the negative trends were not reversed. The Croatian Institute of Public Health reported the following trends in primary care service provision during 2006–07: the number of GP patient visits increased by 2 percent, the number of GP home visits declined by 2 percent (a 44 percent reduction compared to 1990), the number of referrals increased by 1 percent (a 49 percent increase compared to 1995), and the number of GP preventive checkups declined by 19 percent (an 85 percent reduction compared to 1990).¹³

41. The Croatian Institute of Public Health in 2008 stated that “it can be concluded that service provision in primary care had fallen below levels required for providing quality comprehensive primary health care to the population. In particular, the modest numbers of preventive examinations and home visits indicated that, due to financing mechanisms, primary care had transformed into a passive service that diagnoses and treats illness but has no significant effect on population health, as it should declaratively and by law.”¹⁴

6. Primary Care Reforms in 2008 and Beyond: A Shot in the Arm

42. A cluster of reforms implemented in 2008 and beyond (box 2) sought to revitalize a flagging primary care system. These included a mix of organizational changes that precipitated a shift to delivering primary care services in teams, payment reforms that introduced stronger performance incentives and enabled IT investments to support better patient care by primary care providers, collaboration between primary care providers, and performance measurement. In addition, pharmaceutical pricing and reimbursement reforms aimed to improve access to outpatient

drugs and deliver better value from drugs spending. This section describes the reforms implemented and reviews evidence on its effects.

Box 2 Overview of Primary Care and Pharmaceutical Reform Measures from 2008 Onward

Key primary care reform measures:

- **2008:** Introduction of activity-based payments in primary care; 80 percent capitation, 20 percent activity-based payments to incentivize preventive services and increase service delivery at primary care.
- **2009:** Concessions for primary care introduced. County governments start contracting primary care teams to work within the regulated national health care network.
- **2011-13:** E-health investments; integration of IT systems at primary care level completed by 2013.
- **2013:** Key Performance Indicator related to over-prescription (in terms of value) introduced in GP contracts.
- **Mid-2013 (April):** Additional performance bonus of up to 30 percent linked to Key Performance Indicators and Quality Indicators in GP contracts.

Key pharmaceutical reform measures:

- 2009: Pharmaceutical pricing, reimbursement, and promotion of medicines reform.

Concessions on Primary Care: A Shift to Contracting Primary Care Teams

43. In 2009, the private GP model was replaced by “concessions,” which are public-private partnerships in which counties organize tenders for the provision of specific primary health care services such that doctor-nurse teams bid for the opportunity to deliver primary care services. Concessions are granted to primary care teams that operate within the National Health Care Network but outside of primary health care centers where doctors work as salaried employees. This allowed the counties to play a more active role in the organization, coordination, and management of primary health care, enabling them to better tailor it to local needs.

Primary Care Payment Reforms: Introducing Stronger Performance Incentives

44. In 2008, contracting was changed so that family medicine specialists started being remunerated via a combination of capitation (80 percent of their revenues) and activity-based payments (fee-for-service—up to 20 percent of revenues). The activity-based payments were introduced to stimulate the provision of preventive services and to incentivize the provision of services at the primary care level as opposed to unnecessarily referring patients to hospitals.

45. In April 2013, a more advanced payment model was put in place, with the share of activity-based payments increasing to 30 percent and with performance being monitored, evaluated, and further financially stimulated by the use of performance and quality indicators (Key Performance Indicators and Quality Indicators; see box 3). The goals were again to incentivize health care providers to increase the provision of certain types of services (for example, preventive care, diagnostics), but also to increase the quality and efficiency of care. In addition, the HZZO tried to improve accessibility and patient satisfaction by stimulating doctors to form group practices and

provide phone consultations, e-scheduling of appointments, e-ordering, and other e-health services. Good performance on Key Performance Indicators, Quality Indicators, and other contracting options (group practice participation, for example) entitled doctors to bonus payments of up to an additional 30 percent of their disbursements. Although participating in the new contracting model was optional, it was well accepted, with the vast majority of primary health care practices choosing to participate.

Box 3 Use of Key Performance Indicators and Quality Indicators

Key Performance Indicators (benchmarked considering the demographic structure of patients in care, simple, measurable, and automatically calculated from patients' e-charts):

- Prescribing medicines (total expenditure and compliance with HZZO guidelines and restrictions).
- Sick leave rates (expenditure)
- Referrals to hospitals (expenditure)
- Referrals to primary care laboratories (expenditure).

Quality indicators

Detailed monitoring of chronic disease (diabetes, hypertension, asthma, and chronic obstructive pulmonary disease) patients by recording relevant outcome measurements in patient e-charts:

- Book of impressions available to patients.

Five-star offices—that is, practices that meet high standards of service

- Scheduling patients online
- Scheduling patients at specific time slots
- Collecting specimens for primary care lab diagnostics (blood and urine)
- Collecting specimens for microbiological diagnostics
- Family counselling.

Enabling IT Investments

46. Croatia started implementing an e-health information system connecting health care providers, the HZZO, and public health institutes in 2001. The core of the system is the Central Health Information System of the Republic of Croatia (CEZIH), which is operated by the HZZO. CEZIH is an integrated information system that connects and controls all peripheral information systems in primary care doctors' offices, pharmacies, and biochemical laboratories, as well as information systems in hospitals used for centralized scheduling of outpatient consultations and diagnostic tests. Access to CEZIH is granted to authorized users only, that is, health care providers contracted by the HZZO to provide services within the scope of mandatory health insurance.

47. IT efforts have so far been primarily focused on primary health care. All doctors have local patient e-charts—complete national coverage of e-prescriptions and e-referrals to biochemical laboratories were achieved in 2011; e-waiting lists were implemented in 2012; and the implementation of e-referrals to hospital consultations started in 2013. However, most hospitals still have independent clinical IT systems that are not fully integrated into the national information system, although they do exchange substantial data with the HZZO.

48. The IT system was initiated to improve and simplify the delivery of care. For example, patients no longer must collect their laboratory test results, because these are directly accessible (in real time) to doctors; doctors can access information on the dispensing of prescribed medicines and thus monitor compliance, and patients can be seamlessly scheduled for hospital outpatient visits. The main benefits for health professionals include substantial relief from administrative tasks that have been largely automated, and improved communication with other stakeholders in the system. Health care authorities benefit from savings from the printing of prescriptions and referral forms, productivity and efficiency gains, and automated checking of insurance data.

49. Most importantly, access to real-time information can enable improved monitoring of provider performance and informed decision making, with the aim of increasing the efficiency and equity of health care provision (for example, through monitoring services and prescribing and referral patterns).

Pharmaceutical Pricing, Reimbursement, and Promotion of Outpatient Medicines Reform

50. Primary care GPs have authority to prescribe medicines for outpatients. Prescription medicines (for outpatients) are prescribed and dispensed almost entirely in primary health care. Hospital doctors are only allowed to recommend therapy to their primary care counterparts when patients are referred to hospitals for treatment or diagnostics, and only for 48 hours by doctors in emergency medicine departments, after which the patient must return to his or her GP, who is responsible for coordinating patient care.

51. In 2009, Croatia reformed its pricing and reimbursement regulations for medicines with the aim of maximizing value for taxpayers' money; improving efficiency and transparency in high-level decision making; and ensuring ethical medicines promotion practices. The reform has contributed to improving access to medicines for the population, which at the time lagged substantially compared to more affluent Western European countries.

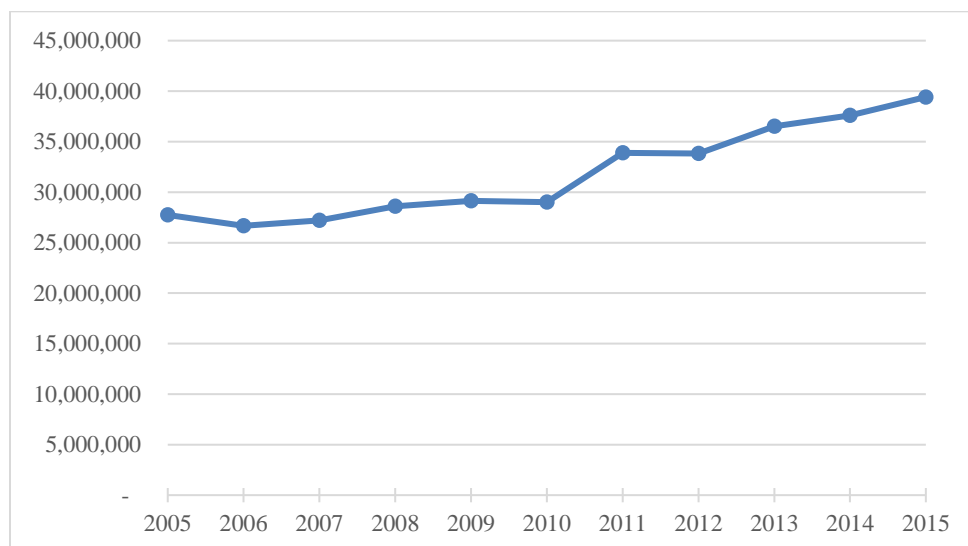
52. International price comparisons and internal price referencing according to therapeutic value became better regulated, positively affecting prices. HZZO's decision making on reimbursement of products was made more transparent by publishing all company applications on the internet and introducing detailed criteria on which the HZZO had to base reimbursement decisions. Requirements for company applications, which the HZZO assessed, increased substantially. The financing of expensive products became regulated by payback agreements concluded between the marketing authorization holder and the HZZO. The HZZO financed the treatment of a precisely defined number of patients, while companies ensured the supply of its medicinal products to additional patients (if needed) at its own cost through donations or reimbursing the amount overspent to the HZZO. All applicants to the lists were obliged to sign a uniform agreement on the ethical promotion of medicines. Companies were obliged to adhere to strict ethical rules in promotion and present all promotion-based expenses, including all payments to individuals employed in the public system.

Primary Care Reforms Revitalized Primary Care

53. Visits to primary care and home visits by GPs have increased substantially since primary care reforms were introduced. The start of primary care reforms reversed a trend of stagnant or declining service volumes in primary care, as discussed previously. The volume of primary care

visits (excluding checkups) and home visits increased by 3 percent between 2005 and 2008, or less than 1 percent per year. The increase between 2008 and 2015 was substantially higher at 38 percent, or 5 percent per year, pointing to the contribution of the reforms (figure 4).

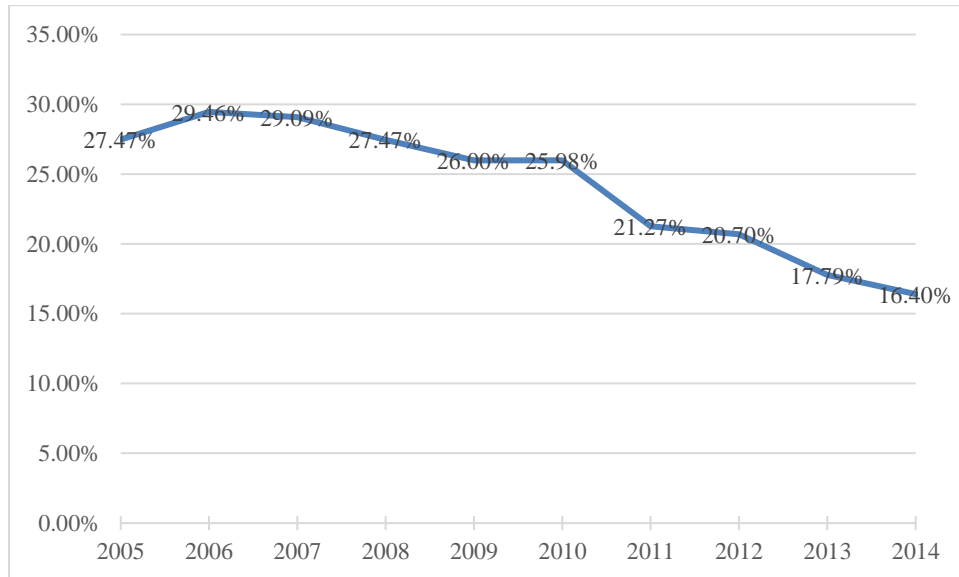
Figure 4 Number of Visits to Primary Care (excluding preventive checkups) and Home Visits by GPs



Source: Croatian Institute of Public Health *Health Service Yearbooks* 2005 to 2015.

54. Trends in referral rates also present a clear indication of the progressive strengthening of primary care service delivery. As discussed, until 2008, due to financial incentives produced by simple capitation payments that were used for financing primary care, the proportion of referrals to hospitals compared to primary care outpatient visits (excluding preventive visits) had been steadily increasing. From 2008, in line with the incremental changes in financial incentives (gradually increasing fees for services) and the introduced specialization of family medicine (education of GPs), the trend has been largely reversed (figure 5)—implying fewer patients have been referred to hospitals and more have been treated at the primary care level. Referral rates from primary care decreased by 40 percent between 2008 and 2014, or 4 percent per year.

Figure 5 Ratio of Referrals to All Visits Minus Preventive Visits in General Practice/Family Medicine

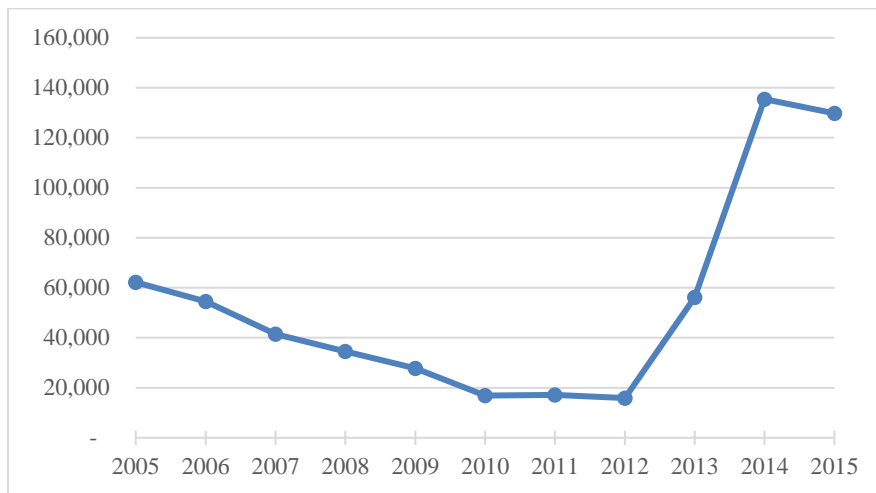


Source: Authors' calculations based on data published in the Croatian Institute of Public Health *Health Service Yearbooks* 2005 to 2014.

55. The results of the 2013 contracting model are particularly interesting. The introduction of the contracting model was accompanied by a 3 percent per year increase in the number of primary care clinic and home visits between 2013 and 2015, with a sharp 8 percent increase in 2013 compared to 2012. The rate at which referral rates were declining became higher, as well, with an 8 percent decrease between 2013 and 2014, and a striking 14 percent decrease in referral rates in 2013 compared to 2012.

56. The number of adult preventive checkups continued to decline despite the introduction of activity-based payments in 2008 (an 80 percent decline is evident between 2008 and 2005). However, the volume of adult preventive checkups delivered responded sharply to the high-powered performance incentives introduced in the 2013 contracting model, which incentivized delivery of preventive checkups through performance-linked bonuses. In 2013, the volume of preventive visits increased sharply by 253 percent compared to 2012, and continued to increase by 141 percent in 2014 compared to 2013 (figure 6).

Figure 6 Number of Adult Preventive Checkups Delivered in Primary Care



Source: The Croatian Institute of Public Health *Health Service Yearbooks* 2005 to 2015.

57. HZZO reports reveal that both concessionaire and primary health care center teams responded well to the performance incentives introduced. For instance, in August 2014, 90 percent of concessionaires and 80 percent of practices in primary health care centers achieved Key Performance Indicator targets. Performance on Quality Indicators was somewhat worse. In the same period, only 50 percent of concessionaires and 20 percent of practices in primary health care centers managed to reach the goals.¹⁵

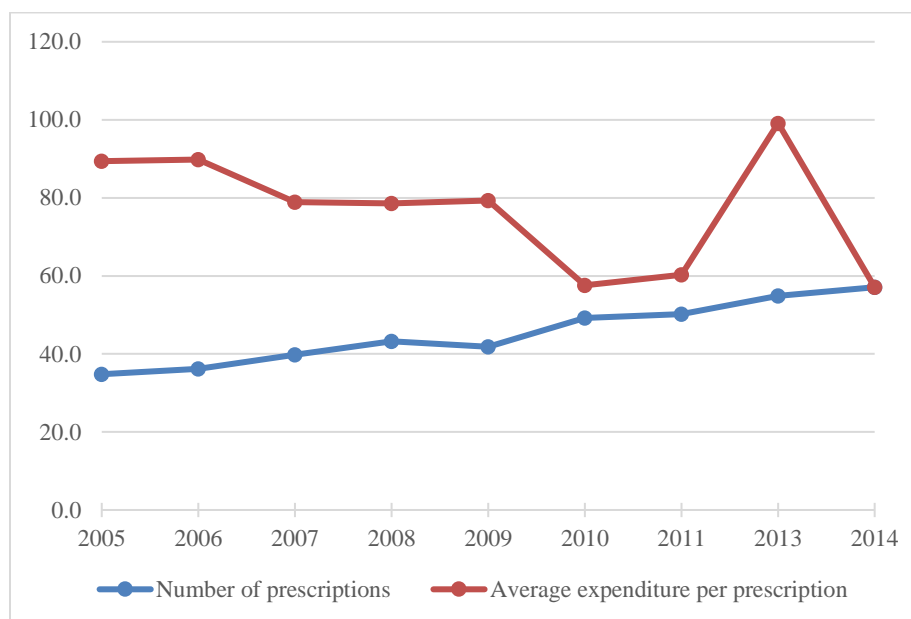
58. The (relatively) poorer performance of primary health center employee teams may have been because salaries of doctors employed in primary health care centers remain the same irrespective of the results they achieve. Primary care doctors' salaries are agreed through collective negotiations, and they cannot receive monetary performance incentives. Thus, they may have been less motivated to achieve contractually specified results than concessionaire teams.

Pharmaceutical Reforms Have Expanded Access while Delivering Better Value for Money

59. The pharmaceutical reforms enabled the HZZO to generate extensive savings, while at the same time improving access to innovative medicines. During July 2009 to July 2010, as many as 60 innovative molecules were added to the HZZO lists of reimbursed medicines. By comparison, 45 products were listed from 2002 to 2009. Meanwhile, the price of the average dispensed pack from January 2009 to September 2009 decreased from HRK 49 to HRK 44, despite the introduction of new innovative medicines to reimbursement. Comparing expenditure in the first six months of 2009 and 2010, as the introduced measures took full effect, HZZO expenditure on prescription medicines decreased by 13 percent from HRK 1.7 to HRK 1.5 billion (€230.5 million to €203.4 million), while its expenditure on expensive hospital medicines decreased by 28.5 percent, from HRK 219 to HRK 157 million (€30 million to €21 million).¹⁶

60. Overall, access to outpatient medicines has expanded over time, as indicated by an increasing number of prescriptions dispensed, while the average expenditure per prescription has decreased, barring a spike in 2013 around elections (figure 7).¹⁷

Figure 7 Number of Prescriptions and Average Expenditure per Prescription



Source: HZZO Annual Reports 2005 to 2014.

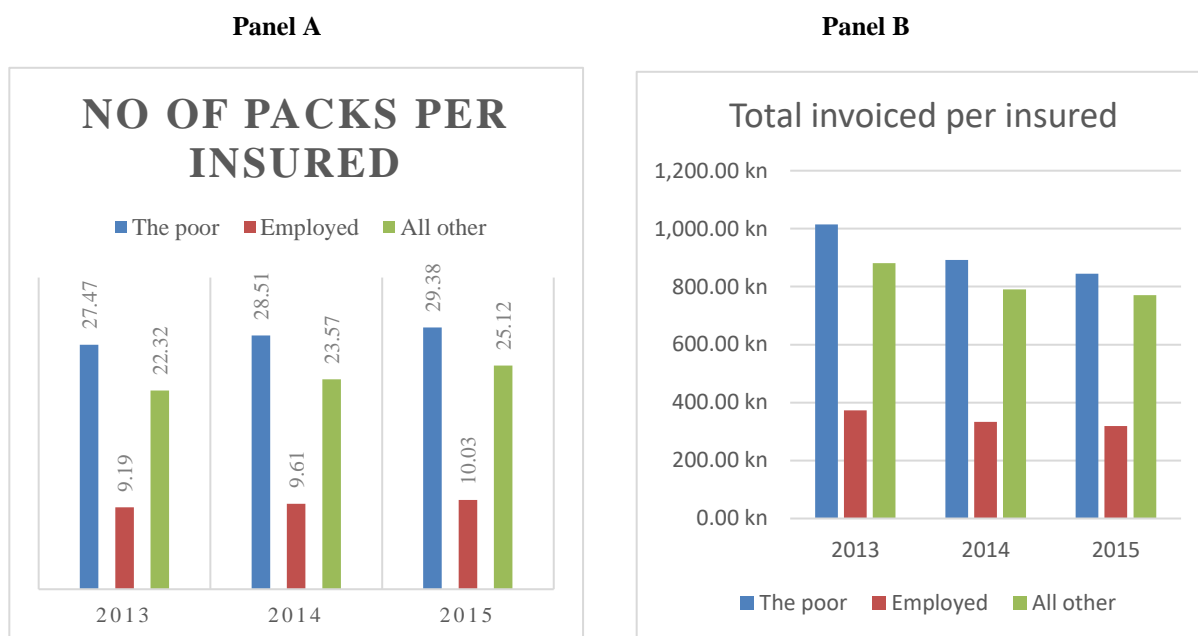
The Poor Share in the Benefits of the Croatian Health System

61. Using the HZZO’s administrative data on utilization and expenditures on insured persons—proxied by invoices for reimbursement from facilities—this chapter compares access to primary care and hospital services between the poor and nonpoor nationally from 2013 to 2015. In this analysis, all HZZO insured were grouped as employed, the poor, and all others (the nonpoor, non-salaried). Poor individuals are those whose complementary health insurance is completely subsidized by the Ministry of Finance, because they live in households whose income is low enough to qualify for this subsidy.

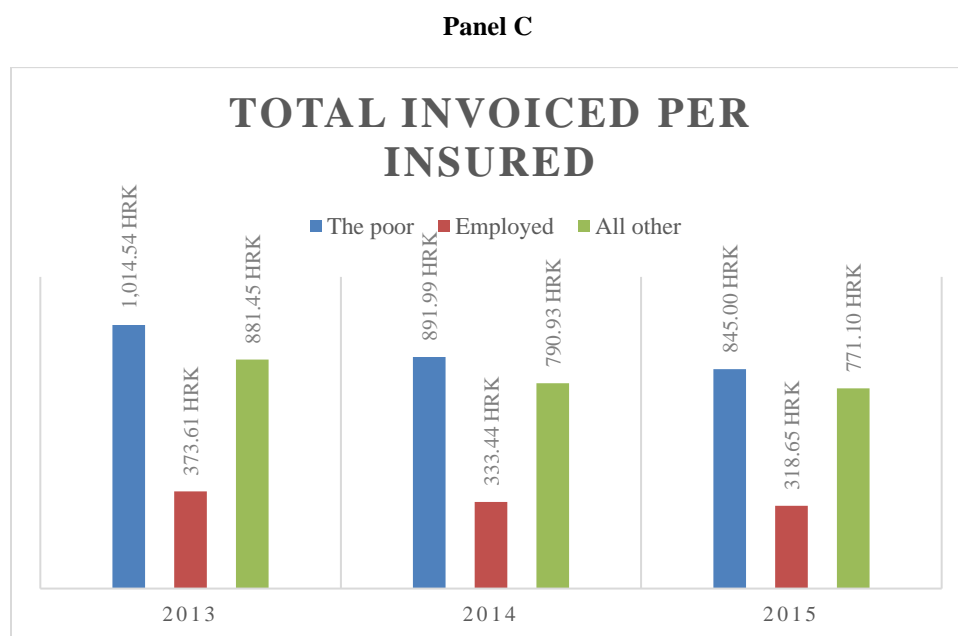
Access to Medicines

62. The poor consume more outpatient medicines than the rich or all others, and expenditures on outpatient medicines per capita are also highest among the poor (figure 8).

Figure 8 Consumption of Medicines by Groups of Insured



Source: HZZO administrative data.



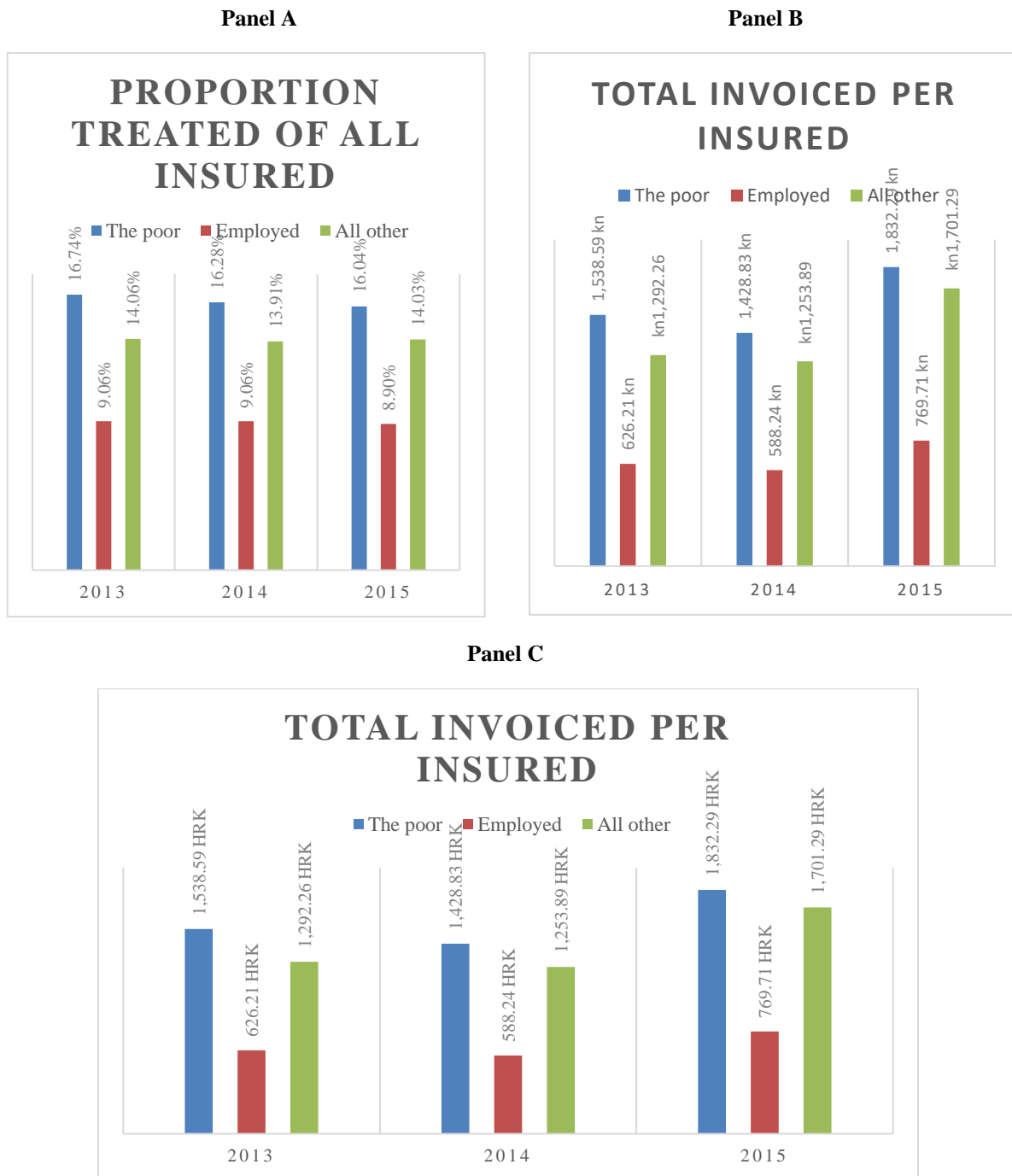
Access to Hospital Services—Inpatient and Outpatient Consultations

63. Because primary care in Croatia acts as a gatekeeper to hospitals, its performance has clear consequences for access to secondary and tertiary care services.

64. Across all insured nationally, the overall trend of hospitalizations has been on a moderate decrease, potentially a reflection of better-functioning primary care. Poor insurees account for the

highest share of inpatients each year, and a correspondingly large share of insurance spending (figure 9).

Figure 9 Hospitalizations by Groups of Insured

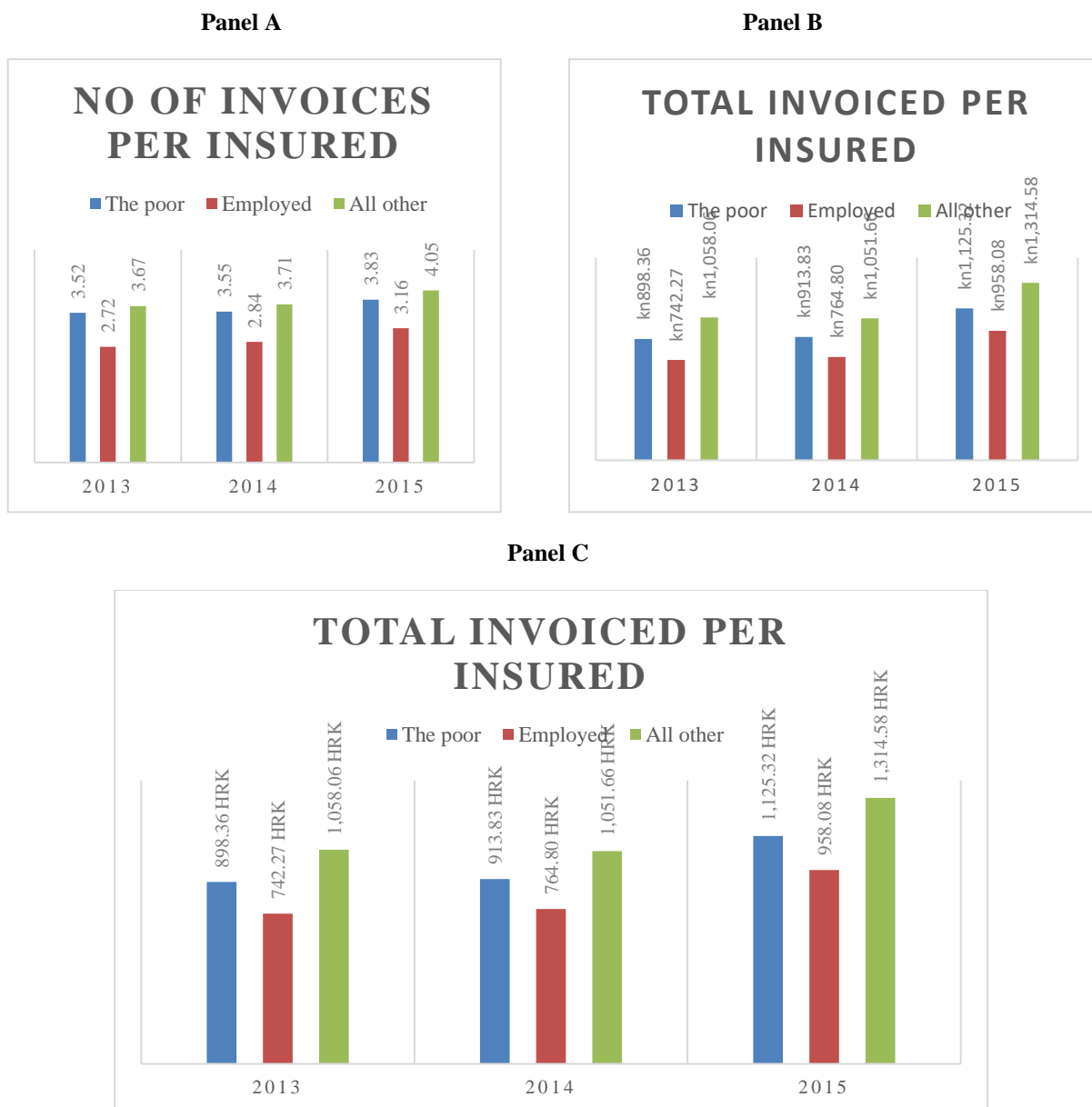


Source: HZZO administrative data.

65. Utilization of, and expenditures on, outpatient hospital consultations among all insured nationally was the only parameter on which the poor as a group did not consume more services per capita compared to both comparator groups (figure 10). Utilization per insured (proxied by

number of invoices) was slightly higher among the “all others” group relative to the poor. The poor do consume more outpatient hospital services than the employed, however.

Figure 10 Outpatient Hospital Services by Groups of Insured



Source: HZZO administrative data.

66. In conclusion, the poor clearly share in the benefits of the Croatian health system and from the primary care reforms. Previously presented household survey data on health spending by wealth quintile clearly underscore the point that the poor are well protected from the catastrophic financial impact of using health services. No data were available, however, on health needs, which are typically higher among the poor than nonpoor. This limits the conclusions we can draw from this analysis. Nevertheless, higher utilization and spending per poor insured suggest that the health system may be quite propoor, with equal or better access for the poor.

67. Several mechanisms might promote service use by the poor in Croatia. First, insurance premiums for the poor are fully subsidized and insurance coverage is universal among the poor.

68. Second, complementary insurance for the poor is paid for, as well, which lowers financial barriers to use, because the poor have no copayments. Third, the HZZO reimburses transport for insured persons who live over 50 kilometers from a health facility so that transportation costs—which may be a disproportionate barrier for the poor—are not an important constraint. Furthermore, the national primary care network of providers is organized to promote geographic and demographic standards such that populations living in less developed and remote areas have equitable access to care. The contractually mandated minimum number of insured persons per GP is lower for such areas. Finally, although the absence of trend data prior to 2013 limit our discussion on this, it is plausible that the primary care reforms implemented since 2008 might contribute. The cluster of reforms implemented stimulated an expansion in primary care service delivery, which might have benefited the poor specifically, because they are more likely to consume primary care services than the rich.¹⁸

7. Conclusions ... and Looking ahead

69. The story this case study tells is a positive one. The reforms have had a positive impact on primary care service delivery, including the delivery of preventive services and revitalized primary care functioning. The increase in primary care service volumes and the decline in referrals to hospitals suggests that more care is delivered at the first level of care, closer to communities. Prescribing volumes in primary care have also been on the rise, indicating improved patient coverage, while costs of drugs have been continuously declining thanks to effective pricing regulations. Performance-based contracting has been particularly effective in stimulating the provision of preventive primary care services. In secondary care, hospitalizations have been declining and outpatient services have been on the rise, possibly indicating that ambulatory-sensitive conditions are less frequently treated by unnecessarily costly hospitalizations.

70. The poor consume substantially more curative services than the better off with the exception of outpatient hospital consultations, where they consume more curative services on a per capita basis than the employed, but not the nonpoor non-employed. While the absence of data on health status and health needs hampers our ability to draw firm conclusions, the poor clearly benefit to a substantial extent from public spending on health in Croatia and may have equal or better access to care. The likely policy mechanisms driving this are many, notably including the fact that the poor pay no copayments to access services.

71. However, less is known about the quality of services provided. Past reforms have been primarily oriented toward the efficiency of service provision, and the HZZO has only recently started introducing quality indicators to its primary care contracting scheme. Reforms in hospitals have been less ambitious.

72. The pending primary care reforms agenda for the Croatian health care system includes further strengthening primary care services, with an increased focus on prevention, and ensuring

the quality of service provision to maximize value for public spending on health and improve health outcomes. Given the aging population, with rising multimorbidity and care needs, improving integration of care is a priority.

73. The Croatian mandatory health insurance system is already under financial strain, and this will increase over time. In the decades to come, the Croatian health care system will, as all other European systems have, face increased financial pressure from an aging population and its growing burden of chronic and noncommunicable diseases, as well as costly advances in medical technology. The aging of Croatian society, with increases in the numbers of retired and decreases in the numbers of employed, will also contribute to the further shrinking of the revenue base of the health insurance system that primarily depends on salary contributions. The employed, who make the full mandatory health insurance contribution for mandatory health insurance of 15 percent, accounted for only 34 percent of the insured in 2014, and this will continue to shrink as Croatia ages.

74. Transfers from the general budget to cover the costs of noncontributing and heavily subsidized insured persons account for about 8 percent of average HZZO spending per insured person, pointing to the high degree of cross-subsidization by the employed. A relatively high health insurance payroll tax of 15 percent means there is relatively limited scope to raise additional revenues by increasing health insurance payroll contributions in the near future. Moving ahead, Croatia will need to think about strategies to broaden the contribution base for health. This could include better-targeted health insurance subsidies (with a smaller list of groups exempted from mandatory health insurance contributions) and greater reliance on general tax revenues to finance health.

75. Delivering better value from public health spending by improving the efficiency and quality of care will also remain a strong imperative for the Croatian health system. Managing the uptake of modern technologies in the benefits package will be a key part of the broader response to this concern. Health technology assessments of the inclusion of costly new services and medicines to the benefits package will need to be substantially refined to take better account of their cost-effectiveness. Improving quality, efficiency, and fiscal responsibility through active purchasing will also be key. This will also require better information systems that can facilitate better purchasing, oversight, and improved coordination among different stakeholders in the system, and more sophisticated analysis of all aspects of service provision. Upgrading and rationalizing Croatia's service delivery model is another key reform priority, and improving the functioning of primary care will remain key to this agenda and to responding to Croatia's health needs effectively. Finally, care must be taken to preserve the propoor characteristics of the health system and health system equity.

Annex 1 Distribution of All Insured Nationally, Croatia, 2013–15

76. Table A1.1 presents the distribution of all insured nationally in Croatia during 2013–15. All HZZO insured were grouped as employed, the poor (proxied as those residing in low-income households for which the Ministry of Finance finances complementary health insurance), and all others.

Table A1.1 Distribution of All Insured Nationally by Observed Years

Year	Category	Number of Insured
2013	The poor	822,007
2014	The poor	782,568
2015	The poor	734,021
2013	Employed	1,400,465
2014	Employed	1,408,027
2015	Employed	1,422,842
2013	All others	2,105,617
2014	All others	2,176,131
2015	All others	2,199,344

Source: HZZO.

Annex 2 Information Environment for Primary Care

78. Croatia started implementing an e-health information system connecting health care providers, the HZZO, and public health institutes in 2001. The core of the system is the Central Health Information System of the Republic of Croatia (CEZIH), operated by the Croatian Health Insurance Fund (Hrvatski zavod za zdravstveno osiguranje, HZZO). CEZIH is an integrated information system that connects and controls all peripheral information systems in primary care doctors' offices, pharmacies, and biochemical laboratories, as well as information systems in hospitals used for centralized scheduling of outpatient consultations and diagnostic tests. Access to CEZIH is granted to authorized users only, that is, health care providers contracted by the HZZO to provide services within the scope of mandatory health insurance.

79. IT efforts have so far been primarily focused on primary health care. All doctors have local patient e-charts, there is complete national coverage of e-prescriptions, and e-referrals to biochemical laboratories were achieved in 2011; e-waiting lists were implemented in 2012; and the implementation of e-referrals to hospital consultations started in 2013.

80. While the integration of IT systems in primary health care has been successfully accomplished, most hospitals still have independent clinical IT systems that are not fully integrated into the national system, even though hospitals exchange substantial data with the HZZO. For instance, all invoicing is done electronically. Current IT priorities include the full implementation of centralized e-medical records that would enable all providers to exchange data on patients, and centralized scheduling of specialist consultations and diagnostics.

81. The IT system was initiated to improve and simplify the delivery of care. For example, patients no longer need to collect their laboratory test results, because these are directly accessible (in real time) to doctors, doctors can access information on the dispensing of prescribed medicines and thus monitor compliance, and patients can be seamlessly scheduled for hospital outpatient visits. The main benefits for health professionals include substantial relief from administrative tasks that have been largely automated, and improved communication with other stakeholders in the system. Health care authorities benefit from savings from the printing of prescriptions and referral forms, productivity and efficiency gains, and automated checking of insurance data.

82. Most importantly, access to real-time information should enable improved monitoring of provider performance and informed decision making, with the aim of increasing the efficiency and equity of health care provision (for example, through monitoring services and prescribing and referral patterns).

Notes

¹ World Bank 2016. <http://pubdocs.worldbank.org/en/418741462386475547/World-Bank-Croatia-Program-Snapshot-April-2016.pdf>.

² World Bank 2015a. EU data are for 2013. Croatia data from Croatian Bureau of Statistics 2014.

³ World Bank 2015b.

⁴ Croatia is administratively divided in 20 regions/counties, plus the capital city of Zagreb, which has the administrative status of a county.

⁵ The average US\$/HRK exchange rate in 2013 was 5.7 kuna to 1 U.S. dollar. *Source*: Croatian National Bank; <https://www.hnb.hr/documents/20182/33ebee1-3d13-4a42-b0fb-87223d026703>.

⁶ Copayments for health services, covered by complementary health insurance, are about HRK 10 (€1.33) for every doctor visit and prescription, except for infectious diseases, cancer treatment, and chronic mental health illnesses.

⁷ This negative list of services includes experimental treatment; procedures and medicines obtained from private providers not contracted by the HZZO; any costs derived by personal wishes of insured that are above the costs of standard treatment provided to all insured; esthetic surgery, not including reconstruction of congenital anomalies, breast reconstructions following mastectomies, and esthetic reconstructions post-heavy injuries; sterility if caused by own will; bypassing public health care waiting lists; surgical treatment of obesity if body mass index is under 40, or 35 with comorbidities; complications caused by treatment outside of mandatory health-insurance-provided services; health care services that have to be secured by employers, the state, or regional and local authorities (of which there are few and which are mostly related to prevention in occupational medicine).

⁸ Reimbursement criteria for medicines are (1) importance of the medicine from a public health perspective, (2) therapeutic importance, (3) relative therapeutic value, and (4) ethical aspects. (These are further elaborated, most importantly under (1); the bylaw specifies that priority public health programs need to be taken into consideration, thus implying that funding is a legitimate cause not to list a medicine). The criteria for not reimbursing a medicine are (1) no equal or added therapeutic or economic value compared to medicines already listed, (2) not needed from a public health perspective, and (3) medicine used for conditions that can be regulated by changing habits.

⁹ Noncontributing insured persons include the unemployed, students, war veterans, children, and family members of contributors. For the purpose of this calculation, the retired are also considered to be noncontributing insured persons because few retired people have pensions that are higher than the average salary, and therefore few are subject to the highly-subsidized 3 percent insurance contribution rate.

¹⁰ Data provided by Ministry of Health, 2016.

¹¹ Baric and Williams 2013.

¹² Croatian Institute of Public Health 2005.

¹³ Croatian Institute of Public Health 2005.

¹⁴ Croatian Institute of Public Health 2009, 109.

¹⁵ Croatian Institute for Health Insurance 2014.

¹⁶ Croatian Institute for Health Insurance 2010.

¹⁷ The spike in expenditures in 2013 may also have been influenced by a shortening in payment deadlines introduced that year.

¹⁸ The analysis could not disaggregate use of outpatient care by category of insured person, because primary care providers are paid based on capitation, and invoice data were not available.

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The Universal Health Coverage (UHC) Studies Series was launched in 2013 to develop and share knowledge regarding pro-poor reforms seeking to advance UHC in developing countries. The Series recognizes that there are many policy alternatives to achieve UHC and therefore does not endorse a specific path or model.

The Series consists of country case studies and technical papers. The case studies employ a standardized approach aimed at understanding the tools –policies, instruments and institutions–used to expand health coverage across three dimensions: population, health services and affordability. The approach relies on a protocol involving around 300 questions structured to portray how countries are implementing UHC reforms in the following areas:

- **Progressive Universalism:** expanding coverage while ensuring that the poor and vulnerable are not left behind
- **Strategic Purchasing:** expanding the statutory benefits package and developing incentives for its effective delivery by health-care providers
- **Raising revenues** to finance health care in fiscally sustainable ways
- **Improving the availability and quality of health-care providers**
- **Strengthening accountability** to ensure the fulfillment of promises made between citizens, governments and health institutions

By 2017, the Series had published 24 country case studies and a book analyzing and comparing the initial 24 case studies. In 2018 the Series will publish 15 additional case studies. Links to the country case studies and the book are included below.

COUNTRY CASE STUDIES:

<http://www.worldbank.org/en/topic/health/publication/universal-health-coverage-study-series>

GOING UNIVERSAL (BOOK):

<http://www.worldbank.org/en/topic/universalhealthcoverage/publication/going-universal-how-24-countries-are-implementing-universal-health-coverage-reforms-from-bottom-up>



The Universal Health Coverage Study Series aims to provide UHC policy makers and implementers with knowledge about available and tested tools—policies, instruments and institutions—to expand health coverage in ways that are pro-poor, quality enhancing, provide financial risk protection and are fiscally sustainable.



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