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Source / Izvornik: **Health Policy, 2007, 80, 144 - 157**

Journal article, Accepted version
Rad u časopisu, Završna verzija rukopisa prihvaćena za objavljivanje (postprint)

https://doi.org/10.1016/j.healthpol.2006.02.016

Permanent link / Trajna poveznica: https://urn.nsk.hr/urn:nbn:hr:105:026122

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Download date / Datum preuzimanja: **2024-08-13**

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Vončina, L., Džakula, A., Mastilica, M. (2007) *Health care funding reforms in Croatia: a case of mistaken priorities.* Health Policy, 80 (1). pp. 144-157.

http://www.elsevier.com/locate/issn/0168-8510

http://www.sciencedirect.com/science/journal/01688510

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Health Care Funding Reforms in Croatia: a Case of Mistaken Priorities

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Abstract
This study provides an overview of funding mechanisms in Croatian health care and analyses them in terms of sustainability, efficiency and equity. The study presents an in depth investigation of problems facing funding health care in Croatia: high expenditure, inadequate financial resources, continuous deficits of the state insurance fund, lack of transparency in funding, an aging population etc. Furthermore, the study provides a critical overview of reforms that have been implemented to counter those issues from 1990 to 2002. The study argues that, in addressing financial deficits, the implemented reforms over relied on acquiring additional financial resources into the funding system and on shifting health expenditure from public to private sources. The study argues that, instead, the reforms should have focused more on curbing rising expenditure in health care providers. Emphasis has been put on the extent to which the reforms affected the conceptual – social foundations of the system. Finally, the paper provides recommendations for policy makers in Croatia and presents an overview of Croatian experiences that might be of interest to researchers and policy makers internationally.

Key words
Health financing, social health insurance, user charges, health care reforms, Croatia

Introduction
The Croatian constitution defines the Republic as a *social state* and proclaims *social justice* to be one of the highest values of the country's constitutional order [1]. Croatia's

health care system is based on the principles of *inclusivity, continuity* and *accessibility* [2]. All citizens of the Republic of Croatia have the right to health care services throughout their entire lives and the network of health care providers ought to be organized in a way that makes it "approximately equally accessible" to all citizens. Compulsory health insurance, the foundation on which citizens acquire their right to health care, is mandatory for everyone and based on the principles of *reciprocity and solidarity* [3]. Social health insurance (SHI) in essence, its central concept ought to be to achieve a set of societal objectives through financial cross-subsidies; from healthy to ill, from well-off to less well-off, from young to old and from individuals to families. The redistributive focus distinguishes SHI from what is normally understood as "insurance" – the latter being an actuarially precise device by which individuals seek to protect their own interests rather than a means of contributing to the best interest of the entire population [4, 5].

Since independence in 1991, Croatia's health care system has been witnessing, as many others throughout Europe, a constant mismatch between available public resources and ever rising expenditure. It has undergone a series of reforms that have attempted to tackle some of the issues contributing to the escalating crisis; the most notable ones for funding health care carried out in 1990, 1993 and 2002. The 1990 reform centralized the previously decentralized system of collecting funds and separated the previously unified regional systems of managing health care providers from collecting compulsory health insurance in an attempt to facilitate state control over management and financing. The 1993 and 2002 reforms focused on cost containment. The 1993 reform reduced the scope of health care services free at the point of use citizens previously enjoyed on the basis of compulsory health insurance and introduced private health insurance for services and providers not covered under compulsory health insurance. The 2002 reform further decreased the scope of health care services free at the point of use and introduced complementary health insurance into the funding system for services not fully covered under compulsory insurance. The reforms largely concentrated on acquiring additional financial resources into the funding system and on shifting health expenditure from public to private sources. In doing so, they have compromised the system's social concept, without adequately addressing the real problem behind the mismatch– high health expenditure.

Contextual factors

In October 1991 Croatia officially declared independence from the Socialist Federal Republic of Yugoslavia. The country inherited a fragmented, decentralized health care system that faced a prolonged professional and financial crisis [6]. The five years of war from 1991 to 1995, following Croatia's declaration of independence, caused considerable damage to the country's housing and public services infrastructure estimated at USD 37,116,679,000. Up to 20,000 persons have been reported killed or missing and more than 30,000 people have been disabled [7]. Approximately 27,000 square kilometres, or 47.5 % of the Croatian continental territory, containing approximately 1.5 million inhabitants were affected by war. At the end of 1991, as much as 11.5% of the population

lived in partly or fully occupied areas. Displaced persons and refugees from neighbouring Bosnia and Herzegovina flooded the country. During the period of 1992 and 1998 the number of refugees and displaced persons was between 430,000 and 700,000 [8]. By 1994, GDP dropped to 50% of its pre-war level in 1990 [9]. These factors have, coupled with soaring unemployment (i.e. over 16% in 1996) and ongoing demographic transition, additionally burdened the already troubled health care system.

Health expenditure

For 2002 (last available data), the World Health Organization estimates Croatia's per capita total expenditure on health at 630 USD - international dollar rate [10]. In comparison to other South Eastern European countries, current candidates for membership or countries aspiring to become candidates for membership in the European Union, the figure is above average. However, Croatia significantly lags behind most of the newly admitted countries into the European Union and even more so behind the old member states (see table 1).

Largely under influence from International Monetary Fund (IMF) and World Bank (WB) recommendations (see for example [11], at least according to WB estimates, Croatia has been able to decrease total expenditure on health from 10.2 percent of GDP in 2000 to 9.1 percent of GDP in 2002 [12]. The decline could be attributed to both GDP growth from year 2001 to 2002 that has been 4% and 5% annually respectively [13], and to the decline of per capita total expenditure on health from 689 to 630 USD international dollars rate, or by almost 9 percent from 2000 to 2002 (calculated on the basis of [10]; as can bee observed on tables 2 and 3. Despite the reductions, with 9.1% of GDP spent on health in 2002, Croatia still spends a considerably larger proportion of its GDP on health care in comparison to other Central and Southern European countries and the majority of EU member states (see table 4).

The reasons behind high costs

Croatia, unlike many of the formerly communist CEE countries, did not inherit an excessively over built health care system. However, there is an inherent assumption that significant scope for cost containment exists through efficiency gains on the provider side of the health care market. Inappropriately designed infrastructure, outdated technology and inefficient deployment of management, staff and resources all contribute to the imbalances and inefficiencies in health care provision and the high health care costs produced by the system [12]. Another consideration might be the high expectations the population holds of the health care system. Prior to the transition to market economy, the health care system (although lacking in financial resources) was characterised by a high level of equity and services virtually free at the point of use [14]. Citizens' dissatisfaction with market elements and cost containment measures gradually introduced into the system has resulted in considerable pressures towards politicians and the state government that have hampered the introduction of "unpopular" but necessary reforms.

The funding system

Croatia operates a Social Health Insurance system that covers the major part of public expenditure for health care services, with a single sickness fund for the entire population of the country – the Croatian Institute for Health Insurance (CIHI). CIHI is a "quasi independent" public body. Although formally independent, the state government effectively controls it as it appoints its director and board of directors (upon the recommendation of the minister of health) and has the authority to dismiss them [3].

Funds allocated for health care are annually determined by the state budget and collected through the state treasury. CIHI receives compulsory insurance funds from the state budget. Those funds originate from three sources: contributions for compulsory health insurance, funds collected by general taxation and county funds colleted from regional taxes. CIHI dispenses the majority of compulsory health insurance funds for provision of health services and a small proportion for infrastructure investments in publicly owned providers. In order to receive public funds for providing health services, all providers regardless of ownership are required to enter into annual contracts with the Croatian Institute for Health Insurance that dictates prices for services and forms of payments [3].

Patients are required to pay out of pocket to privately owned providers (not contracted by CIHI), and if they do not have complementary health insurance, co-payments to providers contracted by CIHI for services not fully covered or not covered by compulsory health insurance. CIHI collects premiums for complementary health insurance on its own. Although informal payments do not form a part of the official funding system and are furthermore illegal, based on published research [15], it would not be realistic to deny their existence in Croatia, as seems to be the case in the greater part of Central and Eastern Europe [16]. Private insurers collect premiums for supplementary insurance that can be used with contracted private or publicly owned providers.

The central government and counties collect additional funds for health care from general taxation and dispense them separately from CIHI for investments into infrastructure and technical equipment and maintenance of publicly owned providers. The Ministry of Health accounts for a minor part of health expenditure; it annually spends around 0.2 – 0.3 % of GDP on public health programmes, planning, regulation etc [12].

The Public/Private split in health care funding

According to Croatian Government estimates of the structure of health care funding in Croatia, the private component continuously stagnated around 2% of GDP from 1999 to 2002 (with GDP increasing), while the public component of funding decreased from 8.2% in 2000 to 7.6% 2001 and finally to 7% of GDP in 2002 [12] (see table 5). Due to Government initiated reforms aimed at cost containment, rationing of services, the expansion of private health care providers and above all due to the 1993 and 2002 amendments to the Health Care Act that significantly increased the role of user charges in Croatian health care, Government estimates of the private part of health care funding may be underestimated, as shall be later discussed in greater length.

It should be noted that WHO, WB and Croatian government estimates vary slightly. World Health Organization Health Report 2005 estimates seem to describe most clearly that private expenditure in funding health care in Croatia is on the rise. Furthermore, WHO estimates allow for comparison between Croatia and other countries (see table 6). Although Croatia seems to be positioned among some of the countries with greatest proportions of government funding in total health care expenditure, clear patterns of decreasing the role of public funding and increasing the role of private funding from 2000 onwards can be recognized.

Compulsory Health Insurance

In general, funding health care through payroll taxes (which are typically proportional and have a ceiling) is less progressive than funding health care through general taxation [17]. Some commentators argue that the reform process over the last 15 years has internationally reduced and even in some cases eliminated certain financial distinctions between SHI and tax based systems introducing a larger role of tax funding into SHI systems [18]. In France, from 2002 the broad CSR tax supplements the state imposed mandatory wealth tax introduced in 2000. Greece and Belgium generate nearly the same amount of revenue from taxes as from SHI premiums [19].

As elsewhere in social health insurance countries [20], the funding of Croatia's compulsory health insurance system does not depend solely on salary contributions. Although regular annual CIHI financial reports do not report a clear division of revenues between salary contributions and general government taxation revenues, some data have been made available in the 2003 World Bank study on the Croatian health care system. While salary contributions accounted for 75%-82% of compulsory health insurance revenues from 1999 to 2002, the remaining part of compulsory health insurance revenues originated largely from central government transfers, but also from other sources such as loans, interest rates, rent etc [12] (see table 7). This is not surprising as an analysis of the structure of the insured reveals that in 2002 and 2003 only 34% and 35% financially contributed to the fund, the remaining majority consisting of the unemployed, retired, dependants, refugees and others relieved of contributions (see table 8) [21, 22].

The 2002 health care reform established the principles of central and local government responsibilities for subsidizing premiums for special categories of population: children under 18, the retired, the unemployed, war veterans and disabled (roughly 70 % of the population). In reality, health care costs incurred by those categories have been primarily subsidized by contributions from workers and farmers. Central government transfers have rather been made retroactively to cover the shortfalls in CIHI budget or to cover deficits accumulated by the health care providers, rather than for specific aspects of health insurance according to prospectively agreed set of obligations [12]. This creates a potential detrimental incentive towards CIHI's technical and administrative efficiency and to its credibility in enforcing financial discipline among health care providers, as it creates a widespread impression that the central government will cover any accumulated deficit at the end of the fiscal year, without considering how it was created; i.e. in 2003

annual hospital expenditure limits (set by the Ministry of Health) were enlarged on four occasions [22].

As in most other SHI countries, compulsory health insurance in Croatia still does not tax overall income, but only salaries. This is in effect regressive, as individuals may possess other sorts of income besides salaries such as rent, bank interest etc. and as it does not allow for a greater proportional burden to be placed on those who are better off. Furthermore, the rate of contributions in Croatia is uniform for all workers regardless of salary (15%), as it is in the majority of other SHI countries. Some countries, such as Austria have adopted rates that vary according to employment status [23]. This instrument allows for a greater proportional burden to be placed on those with higher income.

Health care expenditure that has been, according to World bank estimates, significantly higher than in other European countries with similar GDP and the fact that compensations and allowances such as sick and maternity leave allowances and transport costs compensations are paid from compulsory health insurance funds; have lead the Croatian Institute for Health Insurance to accumulate net financial losses in all consecutive years from 1998 -2001 (data for earlier years not available) [12]. While these have partly been covered by loans and government subsidies, they have been accompanied by a process of substantial and systematic reduction of rights to free health care services and introducing increasing co-payments to virtually all services provided and rationing [14]. Combined with other health care reforms it has lead to a lower standard of health care, which is particularly noticeable in preventive services. The decline in numbers of preventive checkups and GP home visits in Croatia has potential negative consequences on the health of vulnerable groups such as children, women, workers in hazardous occupations and elderly people [24].

The Macroeconomic context for compulsory health insurance

The 1993 health care reform set the contribution rate for salaries to 18% (paid in full by employers) in an attempt to check the galloping health care expenditure incurred from 1991 to 1993. The high rate burdened the weakened labour market which from 1993 to 2000 suffered unemployment rates as high as up to 15% [11]. In 2000 the contribution rate was thus reduced to 16% (of which 7% was paid by employer and 9% by employee). The 2002 reform further reduced the contribution rate to 15% of gross salary (paid by employer in full). From 2002, additional income individuals earned from work not related to salaries also became taxable at the same rate. No ceiling to contributions was set and dependants receive coverage without additional charges. In comparison with other Central European SHI countries: Slovakia, Hungary, Czech Republic; Croatia's contributions are still higher than average (see table 9). The employers/ employees split of contributions in Croatia does not effectively contribute to progressivity nor to the regressivity of the system as contributions are exempt from tax. If contributions are exempt from tax, the contributions cost the same for employers to pay as increasing

wages and for employees to pay and in principle it does not make a difference who pays [26].

Although the government reduced the contribution rate for compulsory health insurance on several occasions since 1993, in terms of macroeconomic efficiency, the implications of comparatively (to other countries of Central and Eastern Europe) still high compulsory health insurance contributions have an impact on the international competitiveness of national businesses. For example, contributions directly affect hourly wages and thus the costs of finished goods in the international marketplace [18]. An additional concern is their effect on the ability of the Croatian market to attract foreign investments that could potentially play an important role in living up the economy, as has been the case in several Eastern European Countries in the last decade such as the Slovak republic (see for example [27].

Besides facing developments such as the introduction of new expensive technologies and rising expectations of the population that contribute to rising health care costs globally, Croatia's social health insurance system faces several additional challenges that threaten its economic sustainability. An analysis of the structure of insured by categories reveals a low percentage of those who actively financially contribute to the fund compared to the total number of beneficiaries. As the system still largely depends on salary contributions, this also makes it highly dependant on the economic situation on the country's labour market; which has from 2000 to 2004 suffered unemployment rates from 19 to 22% [28]. Another consideration is the aging of the Croatian population, caused by long standing decreases in natality, fertility and natural increment [29], with almost 22% of the population aged over sixty in 2003 [10] and the consequent reduction in the ratio of active workers who financially contribute to the system compared to the number of retired.

Informal economy is an additional issue. In 2000 the informal part of the economy in Croatia was equivalent to roughly 7% percent of GDP, compared with an estimated 37% in 1993 [30]. This, in part due to with widespread tax evasion through mechanisms such as underreporting of earnings and salaries and due to weak administrative capacity to enforce tax collection; has lead the government in 2002 to centralize the flow of all public revenues to a single fund – the central treasury. It was though that the collection of all state revenues through a single account would alleviate analysis, comparison and would stimulate greater fiscal discipline in the economy [11]. In relation to health care expenditure, the role of central treasury was also conceived with the intention of enhancing debt collection and debt management and harmonizing CIHI's budget administration with government's fiscal policy and budget planning [12]. However, as estimates for 2003 indicate that informal economy still poses a significant complication in the Croatian market as its presence is significantly above OECD average [31], additional efforts need to be carried out to tackle this issue in order to enhance the financial flow into the health care system.

Complementary health insurance

The reform carried out by the 2002 health care law aimed to improve the financial sustainability of the system by reducing the scope of basic covered services free at the point of use. The law introduced a new co-payment price schedule for selected services in the current benefit package, with higher rates for hospital and specialist services, diagnostic tests, and pharmaceuticals. Furthermore, the law narrowed the structure of categories of beneficiaries exempted from co-payments to some extent compared with prior years, although major categories of exemptions remained the same [3].

The 2002 health care law introduced voluntary Complementary Health Insurance into the funding system. Until 2004 offered exclusively by CIHI, the premium for complementary insurance is community rated and was set at HRK 80 (EUR 10.80) per month, retired HRK 50 (EUR 6.75) per month. It restores full rights to free health care at the point of use in publicly contracted providers. It can be paid by employers or employees and is fully tax deductible [32]. In 2003 Complementary health insurance was purchased by 729,915 citizens, roughly 16 % of the Croatian population [22].

The Complementary health insurance premium does not directly link financial responsibility to individual risk as it is community rated, but it adds to the regressivity of the system as it is set as a lump sum and as it does not tax citizens according to wealth and ability to pay, but rather according to health status. This is evident from the limited data available from the structure of the ensured, where the retired (who are of worse health status than the employed) make roughly 51% of clients [22], while they account for less than 25% of the population. However, Complementary health insurance does partially redistribute funds from the employed to the retired, as the retired, who are more financially challenged than the employed, pay a reduced premium.

Making Complementary and Supplementary health insurance premiums, co-payments and private payments tax deductible is an additional regressive element newly introduced into the system. The effective rebate received by the covered individual is equal to the cost of the coverage provided multiplied by that individual's income tax rate which rises with income [33].

Complementary health insurance, as could have been expected as it was instituted as voluntary insurance with a community rate premium, pooled higher than average risks due to adverse selection (i.e. 51.65% of insured in 2003 were retired). Nevertheless, due to its high premiums it created financial surpluses of HRK 144,000,000 (EUR 19,433,198) in 2002 and HRK 17,178,659 (EUR 2,272,309) in 2003 [21, 22]. Although official data are currently not publicly available, government officials' statements indicate that in 2004 Complementary insurance accumulated a net financial deficit of HRK 137,000,000 (EUR 18,293,497) and is no longer financially sustainable. Taking into consideration the composition of its ensured population, this is not surprising as already in 2003 it had attracted a disproportional amount of heavy spenders which had serious implications for its sustainability.

Although it appears that the 2002 Health Care Law had certain successes in terms of public sector cost containment; other potential effects also deserve analysis. In effect, shifting health care costs to users substantially contributes to the regressivity of the funding system [33, 34]. The 2002 law has further increased out of pocket payments for health care have which were already at a level that seemed to pose a substantial burden to many people, particularly those in lower socioeconomic groups [15, 35]. Thus, with restricted services covered by compulsory insurance and increased cost sharing it put low income groups at a particular disadvantage in terms of access to health care [36, 37]. Although its effects on the populations' health status have not been officially analyzed, international experience shows that cost sharing reduces utilization of both effective and ineffective health care services [38]. Furthermore, it can be linked to poorer health outcomes on several different indicators with disproportional effects on poor people [39] - who have less money to spend.

Private expenditure

The inflow of private funds and user charges into the Croatian health care system originates from four sources: private health insurance, co-payments to providers contracted by CIHI, out of pocket payments to providers not contracted by CIHI and informal payments. As was already discussed, reliable data on private expenditure are not available, but in 2003 the government estimated private expenditure for years 1999 to 2002 at a uniform rate of 2% of GDP [12]. While it is obvious that the Croatian government accentuated the role of user charges in the funding of the Croatian public health care system in both major reforms in 1993 and 2002, the situation with private providers not contracted by CIHI is more uncertain. Loosely regulated by the health care law, they are free to set prices for medical services they provide (not covered by public funding) at their own will and enter into agreements with private insurers. Furthermore, the services they privately provide and charge are neither subject to systematic surveillance nor analysis and thus they themselves and the effects of health reforms on their charges remain virtually unknown.

Prior to their transition to market economy, informal (under the counter) payments made an important feature of health care systems in most Central and Eastern European countries [40]. Unfortunately, there are plenty reports that testify of their continued presence in more recent times ([41, 42, 43]. Due to the fact that informal payments are illegal and thus hidden in Croatia, very few reliable data on them can be found. A study implemented in Croatia in 1994 found that 14% of all respondents reported giving gifts and 8% reported giving "gratitude" money for services received in publicly owned providers of health care [36]. Besides baring an undesirable impact on the efficiency of their provision [42,43], informal payments have been found to represent a highly regressive way of funding health care services [40].

Private health insurance in Croatia plays a marginal role in funding health care as it does in most European Union countries [44]. In 2002, private health insurers reported annual revenues of HRK 962 million (EUR 130 million) or roughly 6% of total health expenditure [12]. Prior to 2002, individuals with annual income over a certain limit (annually determined by the Minister of Health) were allowed to opt out from the

compulsory health insurance system and to insure with privately owned insurers instead. The 2002 Health care law prohibited opt-out and confined the benefits of private insurers' schemes to supplementary insurance benefits such as providing a higher standard or quality of care and faster access (i.e. by avoiding waiting lists in public hospitals) through private providers, extra services and drugs excluded from the compulsory insurance plan, and hotel amenities in publicly owned hospitals. It was recognized that opting out of statutory health insurance threatens the long term financial sustainability of SHI schemes as it tends to attract younger and healthier people, leaving the former with a disproportionate number of large families, older people and people in poor health [45]. As a consequence, the 2002 Health Care Law severely undermined the market for private insurance. Currently six insurance companies in Croatia offer private health insurance. Due to a loose regulatory framework they are able to offer risk rated premiums with benefits designed in order to drive away high risks and maximize profits. Additionally, they support the creation of a two tiered system for the better off (who can afford private insurance) and the worse off who can not.

Funding health care system infrastructure

Similar as in Germany, where the 16 Lander governments pay for major capital investments [23], funds for health care providers' infrastructure and funds for capital investment and technical equipment are collected and distributed separately from health insurance funds and CIHI. Conceptually, responsibility for those expenses is distributed on the ground of ownership. Thus, the central government funds clinical hospitals and clinical hospital centres, counties fund general and special hospitals and primary health care centres in their ownership etc.

However, the central government annually distributes the minimal amount every county is required to spend for capital investments primarily on the basis of the size of covered population, but also on the basis of the number of facilities and beds in each county. County governments are obliged to plan additional funds from their own budgets for decentralised health care functions. If they are unable to collect additional required funds through taxes, the central government may allocate the difference [46]. This measure clearly intends to act in order to preserve equity between the worse off and better of counties as, for example in 2003 GDP per capita between the best off and the worst off counties varied by a factor of 8 to 10 [47]. However, it is not clear to what an extent it actually manages do so as when analyzing need, it does not take adequate consideration of morbidity nor mortality rates, demographic structure etc. Available data for 2004 indicate that the central government allocated a total of roughly HRK 400,000,000 (EUR 53,404,540) for capital investments into all publicly owned health care providers in Croatia, what makes roughly 0.2 percent of GDP [46].

Additionally, CIHI may also allocate certain funds for infrastructure and technical equipment. For example, in 2003 it spent HRK 10,806,932 (EUR 1,429,488) for capital investments in publicly own health providers' facilities or less than 1 percent of its total expenditure [21]. Apart from spending the funds received from central government, the World Bank estimates that, in 2002, county governments additionally spent roughly 3%

of their budgets or 0.2% of Croatia's total GDP on decentralized health care functions [12].

Coverage and Distribution of services

Although the Croatian Health Care Act proclaims that all Croatian citizens have the right to health care and thus that the health care system should strive towards universal compulsory health insurance coverage, this has however not been fully achieved. In 2003 CIHI provided compulsory health insurance to a total of 4,296,955 citizens [22] (CIHI report 2004). According to a mid year estimate by the Croatian Central Bureau of Statistics, in 2003 Croatia had a total of 4,442,000 citizens [48] (RCCBS 2005). Thus, around 146 000 citizens or roughly 3.2 % of the population did not have compulsory health insurance in 2003. The analysis of same sources for 2002 reveals that in 2002 roughly 4.6% of the population did not have compulsory health insurance. One of the possible contributors might be CIHI's rather short deadlines (30-60 days according to the 2002 Health Insurance Law) in which citizens have to apply for free compulsory insurance in situations such as after loosing employment, graduating from school or university etc. A comparison to several other countries that base the funding of their health care systems on social health insurance reveals slightly better results. In 2002, SHI coverage in Austria was estimated at 98%, France 100%, Luxemburg 97-99%, Switzerland 100% etc [26].

Less frequently discussed than funding, distribution of health services can also has implications on the progressivity of the entire system. For example, a proportional system might distribute benefits unequally to obtain the same redistributive effect as a progressive system [49]. Again, as CIHI does not publicize data on consumption patterns structured by income of beneficiaries, a thorough analysis can not be performed. However, available data for 2003 allow for a comparison which reveals that the retired spent, on average, substantially more funds on services than workers and farmers which is to be expected due to their relatively worse health status. However the disabled, on average, spent about equally funds as active contributors and workers, while unemployed spent by far the least amount. Taking their health and financial status in consideration, this might indicate a certain degree of regressivity in the distribution of health care services (see table 10).

Conclusion

Although certain temporary decreases have been achieved in 2001 and 2002, health care expenditure (as percentage of GDP) in Croatia is still considerable and in 2003 it was once again on the rise ([21] and[22]). While, compared to other countries Croatia spends a disproportionate amount of its resources on health care, the system continues to struggle with high public expectations and financial deficits.

Over the past ten years the government has attempted to stimulate cost containment through various measures aimed at providers including rationing of services, limitation of services provided, penalties for excessive prescribing or referrals, a limited list of approved drugs, reductions in health budgets; but with only limited success and

acceptance from providers and the public [14, 50]. Thus, pressured by constant health care deficits, the impression is that the government has kept the weight of its focus on the demand side of the market reducing the public part of expenditure and increasing co-payments in order to address excessive demand for unnecessary health care services and to collect additional revenue. From a sustainability and efficiency point of view, there is controversial evidence regarding how beneficial cost sharing arrangements can actually be.

Although user charges exist in some form or another in most European countries, in Western Europe they are primarily used under the argument of confronting patient moral hazard, i.e. that their absence encourages excessive demand of unnecessary health care services [38]. However, due to the fact that the health care market is supply side dominated due to asymmetry of information and the agency relationship between physicians and patients [51], even without taking supplier induced demand into consideration (as Croatian physicians working in publicly owned provider do not receive payment on the basis of fee for service) measures aimed at physicians rather than patients may prove to be more effective in confronting excessive unnecessary demand [45].

An alternate argument for user charges, used mostly in CEE is that of additional revenue collection [38]. However, experience from other countries has shown that user charges can be complex and expensive to implement and administer [52] and that although they can be used to supplement public revenue; total revenue from user charges has rarely met its expectations. Thus, user charges need to be considered in the context of the managerial and administrative capacity needed to implement them and the time and additional costs they impose [39].

The Government's continuing reliance on increasing private funding in addressing financial insolvency in the system also raises considerable concern with regards to its conceptual social foundations. Out of pocket expenditure conversely affects equity in the system as it necessarily puts a heavier strain on household budgets of lower income individuals and families against of those with higher levels of wealth [33, 34, 38, 53]. To continue, out of pocket charges have been shown to discourage lower income individuals from seeking necessary care [53, 54]; thus reducing equity of access [55] and potentially negatively affecting their health status.

Croatia should, when addressing health care funding invest additional efforts into fighting informal economy, thus enhancing the inflow of funds into the system. The government should also more strictly enforce the 2002 Health Care Law with regards to its obligations of subsidizing financially non contributing categories of the population and insist on a higher level of financial discipline in health care expenditure instead of continuing the practice of covering cumulated deficits.

Furthermore, in addressing high expenditure in the health care system for its level of wealth, Croatia should transfer its focus of attention from the demand side of the health care market to its supply side. It should reduce overall costs through proved mechanisms that address providers of health care services rather than keep insisting on addressing

users' excessive demand and collecting additional funds through cost sharing. Although cost containment measures addressed at health care providers require more difficult and politically dangerous decisions and additional conflicts with the medical profession [56], it could be concluded that the Croatian health care system and social welfare in Croatia could acquire greater benefits from them, rather than from the course of action the Government has pursued so far.

Note

Throughout the text, exchange rates for respective years used to calculate figures in EUR (Euro) from HRK (Croatian Kuna) are official Croatian National Bank midpoint yearly exchange rates. Accessible at http://www.hnb.hr/tecajn/etecajn.htm

References:

[1] Croatian Parliament. Constitution of the Republic of Croatia; 2001 http://www.usud.hr/htdocs/en/the_constitution.htm (Accessed on 20 August 2005)

[2] Croatian parliament. Health Care Act. Zakon o zdravstvenoj zastiti. [in Croatian]Official Gazette of the Republic of Croatia No 121; 2003

[3] Croatian parliament. Health Insurance Act. Zakon o zdravstvenom osiguranju. [in Croatian] Official Gazette of the Republic of Croatia No 94; 2001, No 88; 2002, No 149; 2002, No 117; 2003, No 30;2004 and No 177; 2004

[4] Glaser WA. Health Insurance in Practice. San Francisco: Jossey-Bass; 1991

[5] Stone DA. The Struggle for the Soul of Health Insurance. Journal of Health Politics, Policy and Law 1993;18(2): 287–318

[6] Letica S. Health Politics in times of crisis. Zdravstvena politika u doba krize [in Croatian]. Zagreb: Naprijed; 1989

[7] Government of the Republic of Croatia. War Damage in the Republic of Croatia. Croatian Governmental Bulletin; 1999 http://www.vlada.hr/bulletin/1999/sep-oct/document-full.html (Accessed on 20 August 2005)

[8] Babic- Banaszak A, Kovacic L, Kovacevic L, Vuletic G, Mujkic A, Ebling Z. Impact of War on Health Related Quality of Life in Croatia. Croatian Medical Journal 2002; 43(4): 396 – 402

[9] Dzakula A, Oreskovic S, Brborovic O, Voncina L. Decentralization and Healthcare Reform in Croatia 1980-2002 in Shakarishvili E (editor) Decentralization in Healthcare – Analyses and Experiences in Central and Eastern Europe in the 1990s. Local Government and Public Service Reform Initiative, Open Society Institute – Budapest; 2005

[10] World Health Organization. The World Health Report 2005: Make Every Mother and Child Count, Statistical annex; 2005 http://www.who.int/whr/2005/en/ (Accessed on 20 August 2005)

[11] World Bank. Croatia Country Study - Croatia Regaining Fiscal Sustainability and Enhancing Effectiveness: A Public Expenditure and Institutional Review, Report No. 22155-HR; 2000 http://www.worldbank.hr/external/default/main?pagePK=51187349&piPK=51189435&theSitePK=301245&menuPK=64187510&searchMenuPK=301273&theSitePK=301245&entityID=000094946_01112004005860&searchMenuPK=301273&theSitePK=301245 (Accessed on 20 August 2005)

[12] World Bank Europe and Central Asia Region, Human Development Department. Croatia Health Finance Study. World Bank, Washington, D.C.; 2004 http://www-wds.worldbank.org/servlet/WDS_IBank_Servlet?pcont=details&eid=000012009_20040616103200 (Accessed on 20 August 2005)

[13] World Bank. World Development Database Indicators; 2005 http://devdata.worldbank.org/data-query/ (Accessed on 20 August 2005)

[14] Mastilica M, Kusec S. Croatian Healthcare System in Transition, from the Perspective of Users. British Medical Journal 2005; 331:223-226

[15] Mastilica M, Bozikov J. Out-of-Pocket Payments for Health Care in Croatia: Implications for Equity. Croatian Medical Journal 1999;40:152-9.

[16] Lewis M. Informal Health Payments in Central and Eastern Europe and the Former Soviet Union: Issues, Trends and Policy Implications in Mossialos E, Dixon A, Figueras J, Kutzin J (editors) Funding Health Care: Options for Europe. Buckingham: Open University Press; 2002

[17] Wagstaff A, Van Doorslaer E, Van der Burg H. Equity in the Finance of Health Care: Some Further International Comparisons, Journal of Health Economics 1999;18(3):263–90.

[18] Saltman RB. Social Health Insurance in Perspective – the Challenge of Sustaining Stability in Saltman RB, Busse R, Figueras J, (editors) Social Health Insurance Systems in Western Europe. Buckingham: Open University Press; 2004

[19] Mossialos E, Dixon A. Funding Health care: an Introduction in Mossialos E, Dixon A, Figueras J, Kutzin J (eds.) Funding Health Care: Options for Europe. Buckingham: Open University Press; 2002

[20] Danzon M. Foreword in Saltman RB, Busse R, Figueras J, (editors) Social Health Insurance Systems in Western Europe. Buckingham: Open University Press; 2004

[21] Croatian Institute for Health Insurance. Financial report for year 2002. Godisnje izvjesce o poslovanju zdravstvenog osiguranja i zdravstva Republike Hrvatske za 2002. godinu [in Croatian] Zagreb; 2003 www.hzzo-net.hr

[22] Croatian Institute for Health Insurance. Financial report for year 2003; Izvjesce o financijskom poslovanju Hrvatskog zavoda za zdravstveno osiguranje u razdoblju I. do XII. 2003. godine [in Croatian] Zagreb, 2004 www.hzzo-net.hr

[23] Busse R, Saltman RB, Dubois HFW. Organization and Financing of Social Health Insurance Systems: Current Status and Recent Policy Developments in Saltman RB, Busse R, Figueras J, (editors) Social Health Insurance Systems in Western Europe. Buckingham: Open University Press; 2004

[24] Oreskovic S, Kuzman M, Budak A, Vrcic-Keglevic M, Ivankovic D. Doctor in the House: Trends in GPs Home Visiting in Croatia 1990-1995 Compared to Current Trends in USA and UK. Collegium Antropologicum 1997; 21:595-608.

[25] Preker A.S, Jakab M, Schneider M. Health Financing Reforms in Central and Eastern Europe and the Former Soviet Union in E Mossialos, A Dixon, J Figueras, J Kutzin (Editors) Funding health care: Options for Europe. Buckingham: Open University Press; 2002.

[26] Normand C, Busse R. Social Health Insurance Financing, in Mossialos E, Dixon A, Figueras J, Kutzin J (editors) Funding Health Care: Options for Europe. Buckingham: Open University Press; 2002

[27] CIA (Central Intelligence Agency). The World Fact Book: Slovak Republic; 2005 (Accessed on 20 August 2005) http://www.cia.gov/cia/publications/factbook/index.html

[28] Republic of Croatia Central Bureau of Statistics. Republic of Croatia, Statistical Information 2004; Zagreb; 2004 www.dzs.hr

[29] Croatian National Institute of Public Health. Croatian health service yearbook 2003. Hrvatski zdravstveno statisticki ljetopis za 2003. godinu [in Croatian]Zagreb, 2003

[30] Ott K. The Evolution of Informal Economy and Tax Evasion in Croatia. University of New South Wales eJournal of Tax Research Vol 2 No. 1; 2004 http://ideas.repec.org/p/nsw/discus/83.html#author (Accessed on 20 August 2005)

[31] World Bank. Snapshot of Business Environment – Croatia; 2005 http://www.doingbusiness.org/ExploreEconomies/BusinessClimateSnapshot.aspx?economyid=52(Accessed on 20 August 2005)

[32] Croatian Parliament. Income Tax Act. Zakon o porezu na dohodak. [in Croatian]Official Gazette of the Republic of Croatia No 127; 2000, No 150; 2002 and No 163; 2003

[33] Evans RG. Financing Healthcare: Taxation and the Alternatives, in Mossialos E, Dixon A, Figueras J and Kutzin J (editors) Funding Health Care: Options for Europe. Buckingham: Open University Press; 2002

[34] Barer M, Evans RG, Hertzman C, Johri M. Lies, Damned Lies and Health Care Zombies: Discredited Ideas that Will not Die. HPI Discussion Paper #10 (March). Health Policy Institute, University of Texas – Houston Health Science Center; 1998

[35] Mastilica M, Chen MS. Health Care Reform in Croatia: the Consumers' Perspective. Croatian Medical Journal 1998; 39:256-66.

[36] Chen MS, Mastilica M. Health Care Reform in Croatia: for Better or for Worse? American Journal of Public Health 1998; 88:1156-60.

[37] Mastilica M, Babic- Bosanac S. Citizens' Views on Health Insurance in Croatia. Croatian Medical Journal 2002; 43:417-24.

[38] Robinson R. User Charges for Health Care in Mossialos E, Dixon A, Figueras J and Kutzin J (editors) Funding Health Care: Options for Europe. Buckingham: Open University Press; 2002

[39] Scheiber G, Maeda A. A Curmudgeon's Guide to Financing Health Care in Developing Countries, in Scheiber G (editor) Innovations in Health Care Financing. Washington, DC: World Bank; 1997

[40] Szende A, Culyer AJ. The Inequity of Informal Payments for Health Care: the Case of Hungary, Health Policy, in press; 2005

[41] Delcheva E, Balabanova D, McKee M. Under-the-Counter Payments for Health Care: Evidence from Bulgaria. Health Policy 1997; 42(2):89–100.

[42] Thompson R, Witter S. Informal Payments in Transitional Economies: Implications for Health Sector Reform. International Journal of Health Planning Management 2000; 15(3):169–87.

[43] Ensor T. Informal Payments for Health Care in Transition Economies. Social Science and Medicine 2004; 58(2):237–46.

[44] Mossialos E, Thompson SMS. Voluntary Insurance in the European Union in Mossialos E, Dixon A, Figueras J and Kutzin J (editors) Funding Health Care: Options for Europe. Buckingham: Open University Press; 2002

[45] Thompson SMS, Mossialos E. What are the Equity, Efficiency, Cost Containment and Choice Implications of Private Health-Care Funding in Western Europe? Health Evidence Network Report; World Health Organization - Office for Europe; 2004

[46] Croatian Institute for Health Insurance –online; 2005 www.hzzo-net.hr/odluke/17.htm Accessed on 20 august 2005 [in Croatian]

[47] Privredni Vjesnik. No 3322 – 6 October 2003 Regional Distribution of GDP per Capita. Regionalni raspored BDP-a po stanovniku. [in Croatian] http://www.privredni-vjesnik.hr/index.cgi?A=I&SIF=00001&BR=003322&DA=20031006 (Accessed on 20 August 2005)

[48] Republic of Croatia Central Bureau of Statistics. Republic of Croatia, Statistical Information 2005; Zagreb; 2005 www.dzs.hr

[49] Ervik R. The Redistributive Aim of Social Policy: A Comparative Analysis of Taxes, Tax Expenditure Transfers and Direct Transfers in Eight Countries. New York: Syracuse University Press; 1998

[50] Hebrang A. Reorganization of the Croatian Health Care System. Croatian Medical Journal 1994; 35:130-6.

[51] Arrow KJ. Uncertainty and the Welfare Economics of Medical Care, The American EconomicReview, Vol. LIII, No. 5, December 1963, pp. 941-973

[52] Mossialos E, Le Grand J. Health Care and Cost Containment in the European Union, Aldershot: Ashgate 1999.

[53] Kutzin J. The appropriate role for Patient Cost Sharing, in Saltman R, Figueras J and Sakellarides C (editors) Critical Challenges for Health Care Reform in Europe. Buckingham: Open University Press; 1998

[54] D'Onofrio C, Muller P. Consumer Problems with Prepaid Health Plans in California, Public Health Reports1977; 92: 121–34.

[55] Rice T. The Economics of Health Reconsidered. Chicago: Health Administration Press; 1998

[56] Evans RG, Barer ML. User Fees in Health Care: Why a Bad Idea Keeps Coming Back (Or, What's Health Got to do With It?) Canadian Journal on Aging 1995; 14(2):360-390

Tables:

Table 1; Per Capita total expenditure on health at international dollar rate				
State	**1999**	**2000**	**2001**	**2002**
Bosnia & Herzegovina	304	291	293	322
Turkey	392	443	391	420
Romania	359	378	429	469
Bulgaria	336	381	450	499
Croatia	628	689	674	630
Slovakia	595	608	652	723
Hungary	820	847	961	1078
Czech Republic	932	977	1083	1118
Slovenia	1299	1356	1487	1547
Austria	2069	2147	2174	2220
Italy	1853	2001	2107	2166
Source: [10]				

Table 2; Total "annual health expenditure per capita" growth in %				
State	**1999**	**2000**	**2001**	**2002**
Bosnia & Herzegovina	79	-4	1	10
Turkey	26	13	-12	7
Romania	13	5	13	9
Bulgaria	27	13	18	11
Croatia	9	10	-2	-7
Slovakia	6	2	7	11
Hungary	6	3	13	12
Czech Republic	2	5	11	3
Slovenia	6	4	10	4
Austria	6	4	1	2
Italy	3	8	5	3
Source: Calculated on the basis of [10]				

Table 3; GDP annual growth in percentages					
State	**1999**	**2000**	**2001**	**2002**	**2003**
Bosnia & Herzegovina	10	6	4	4	3
Turkey	-5	7	-7	8	6
Romania	-1	1	5	4	5
Bulgaria	2	5	4	5	4
Croatia	-1	3	4	5	4
Slovakia	1	2	4	4	4
Hungary	4	5	4	3	3
Czech Republic	1	4	3	1	3
Slovenia	5	4	3	3	3
Austria	3	3	1	1	1
Italy	2	3	2	0	0
Source: [13]					

Table 4; Total expenditure on health as percentage of GDP				
State	**1999**	**2000**	**2001**	**2002**
Bosnia & Herzegovina	10.7	9.7	9.2	9.2
Turkey	6.4	6.6	6.5	6.5
Romania	5.8	5.8	6.1	6.3
Bulgaria	6.2	6.5	7.1	7.4
Croatia*	10	10.2	9.5	9.1
Slovakia	5.9	5.7	5.7	5.9
Hungary	7.4	7.1	7.4	7.8
Czech Republic	6.6	6.6	6.9	7
Slovenia	7.7	8	8.3	8.3
Austria	7.8	7.7	7.6	7.7
Italy	7.8	8.1	8.3	8.5
Source: [10] & [12]*				

Table 5; Croatia, estimated expenditure on health as % of GDP					
Component	**1998**	**1999**	**2000**	**2001**	**2002**
Public	7.6%	8%	8.2%	7.6%	7%
Private	1.6%	2%	2%	2%	2%
Source: [12]					

Table 6; General government (public) expenditure on health as percentage of total expenditure on health				
State	**1999**	**2000**	**2001**	**2002**
Bosnia & Herzegovina	56.7	52	48.8	49.8
Turkey	61.1	62.9	62.5	65.8
Romania	64.9	67.9	67.8	65.9
Bulgaria	66.5	61.2	55.8	53.4
Croatia	86.1	86.4	85.5	81.4
Slovakia	89.9	89.7	89.6	89.4
Hungary	72.4	70.7	69	70.3
Czech Republic	91.5	91.4	91.4	91.4
Slovenia	75.5	76	74.9	74.9
Austria	69.6	69.6	68.5	69.9
Italy	72.3	73.7	76	75.6
Source: [10]				

Table 7; Percentage of CIHI Compulsory health Insurance revenue originating from salary contributions				
Year	1999	2000	2001	2002
Percentage	78%	77%	75%	82%
Source: Calculated on the basis of [12]				

Table 8; Insured by categories in 2002 and 2003		
Category	**2002**	**2003**
Workers	1,328,356 (31.3%)	1,389,096 (32.3%)
Farmers	94,150 (2.2%)	85,632 (2.0%)
Retired	997,971 (23.5%)	1,000,408 (23.3%)
Unemployed	365,396 (8.6%)	375,258 (8.7%)
Others	125,334 (3.0%)	139,989 (3.3%)
Dependants	1.318,679 (31.1%)	1,299,407 (30.2%)
Refugees	9,224 (0.2%)	7,165 (0.2%)
Total	4,239,110 (100%)	4,296,955 (100%)
Source: [21] &[22]		

Table 9; Payroll contribution rate for Social health insurance by country and year	
State	**Contribution rate**
Croatia (2004)	15%
Czech Republic (1999)	13,5%
Estonia (1999)	13%
Hungary (1999)	14%
Slovak republic (1999)	13.7%
Slovenia (1999)	13.25%
Source: [25]	

Table 10; Average CIHI yearly expenditure per ensured person and dependents in 2003 (Compulsory insurance)	
Group with dependents	**Average cost per year (insured and dependants)**
Active contributors	HRK 2792.65 (EUR 369.40)
Farmers	HRK 2881.87 (EUR 381.20)
Retired	HRK 4293.18 (EUR 567.90)
Unemployed	HRK 1517.98 (EUR 200.80)
Disabled, incapable for work	HRK 2739.56 (EUR 362.40)
Source: [22]	