

# Health System in Croatia: The Runner Up For Europe



Pr Abdo Jurjus  
President,  
Lebanese Health Society

## Introduction

Croatia is a small central European country with a long Adriatic coastline, bordered by Bosnia and Herzegovina, Hungary, Serbia, Montenegro and Slovenia. The country is a parliamentary democracy, established by the Constitution of 22 December 1990, with local government organized on two levels: 21 counties (including the capital Zagreb) at a higher level, and 127 cities and 429 municipalities at a

lower level.

Croatia suffered significant demographic and economic losses during the War of Independence (1991–1995). Post-war GDP growth, mainly underpinned by reconstruction activity, has not remained robust and the economy experienced recession in the late 1990s. Croatia has also not been immune to the global economic slowdown that started in 2008 and had to implement austerity measures, including in the health sector. GDP shrank in 2010, with no or negative growth rates also recorded in 2011–2013 and a further contraction expected in 2014. In 2012, Croatia's GDP was at 62% of the European Union (EU) average (using the purchasing power standard; PPS).

Croatia's EU accession on 1 July 2013 will bring in up to €11.7 billion in funding from the EU until 2020, including for the development of the health care sector, although the EU's recently strengthened requirements for the control of public finances are likely to have an impact on Croatia. Croatia has a population of approximately 4.3 million. Life expectancy at birth has been increasing but is still lower than the EU average (3.6 years lower for men and 2.5 years lower for women). Like many other countries in Europe, Croatia is experiencing a decline in its natural population and population ageing is putting a strain on its health care resources. The prevalence of overweight and obesity in the population has increased during recent years, with more than half of both men and women being overweight, and levels of physical inactivity low and getting lower. Although alcohol consumption, smoking and unhealthy diet are prevalent, some positive trends can be observed in these areas. A socioeconomic gradient is discernible in the health status of the population and there are also geographical differences, with the eastern regions of the country (which were particularly damaged during the Independence War) having poorer health.

## Organization and Governance

Croatia's social health insurance system is based on the

principles of solidarity and reciprocity, by which citizens are expected to contribute according to their ability to pay and receive basic health care services according to their needs.

The steward of the health system is the Ministry of Health, which is responsible for health policy, planning and evaluation, public health programmes, and the regulation of capital investments in health care providers in public ownership.

The Croatian Health Insurance Fund (CHIF), established in 1993, is the sole insurer in the mandatory health insurance (MHI) system, which provides universal health insurance coverage to the whole population. As the main purchaser of health services, the CHIF plays a key role in the definition of basic health services covered under statutory insurance, the establishment of performance standards, and price setting for services covered under the MHI scheme. The CHIF is also responsible for the payment of sick leave compensation, maternity benefits and other allowances. In addition, it is the main provider of complementary voluntary health insurance (VHI) covering user charges (termed supplemental insurance in Croatia).

Although there was a general shift towards privatization in the early 1990s, the State actually increased its control of the health sector during that time. The majority of primary care physicians' practices have been privatized, and the remaining ones were left under county ownership. Tertiary health care facilities are owned by the State while the counties own the secondary health care facilities. "Concessions" were introduced in 2009; these are public-private partnerships (PPPs) whereby county governments organize tenders for the provision of specific primary health care services. This allowed the counties to play a more active role in the organization, coordination and management of primary health care, with the aim of better tailoring it to local needs.

The Ministry of Health is the main regulatory body in the health care system. Some major regulatory changes in recent years concerned the pharmaceutical sector. In 2006, the government introduced internal reference pricing (taking Italy, France, Slovenia, Spain and the Czech Republic as reference points), limiting reimbursement to the reference price. In 2009, various types of financial risk-sharing agreements were introduced, particularly for expensive products, in order to enable market access for new medicines but keep control over expenditure. In the same year, Croatia reformed its pricing and reimbursement system for medicines, with the aim of maximizing value for money while increasing efficiency and transparency.

The final reimbursement decision now depends on the expected impact on the CHIF's budget. Health technology assessment (HTA) is only just beginning to develop.

Information relevant to the health sector is collected and processed by a number of national and special registries. Overall, there are more than 60 registers in the health care system. However, these registers are neither linked nor standardized, and a large number of health reports are still produced by manual data processing.

There is no central web site or other central source that provides general health system information, but web sites and helplines of the Ministry of Health, the CHIF and the majority of hospitals and other health care institutions provide key information related to publicly funded health care services and rights, including some technical information, such as information on waiting times and available treatments.

Patient rights were already laid down in the Health Care Act of 1993 and almost identically continued in the 2004 Act on Protection of Patients' Rights and its amendments. However, it seems that, due to political and legal as well as cultural and social reasons, this legislation has still not had a significant effect on the status of patients in the Croatian health care system.

Croatia's EU accession on 1 July 2013 required harmonization of the regulatory framework governing the health care sector with the relevant EU legislation, including coordination of the social security systems between Croatia and other EU Member States.

## Financing

The proportion of GDP spent on health by the Croatian government has grown steadily since the early 2000s. In 2012, Croatia spent 6.8% of its GDP on health, a share that was smaller than in most western European countries of the WHO European Region. The per capita purchasing power parity (PPP) health expenditure in Croatia, although higher than in most central and south-eastern European countries, was lower than in nearly all western European countries of the WHO European Region.

While the share of public expenditure as a proportion of total health expenditure (THE) decreased between 1995 and 2012, at around 82% of THE. It is still high compared to most countries in the WHO European Region, reflecting the tradition of solidarity in health care financing and the continued importance of health care on the Croatian policy agenda. Out-of-pocket (OOP) payments account for the majority of private expenditure on health.

In 2013, 17.6% of the total State budget was allocated to health care. The majority of the health care budget (over 91%) is allocated to the CHIF to finance goods and services covered within the MHI scheme. The key sources of the CHIF's revenue are: compulsory health insurance contributions, accounting for 76% of the total revenues of the CHIF, and financing from the State budget (15%). It is estimated that only about a third of the population (consisting of the economically active) is liable to pay full health care contributions. Overall, the financing of the MHI system seems to be regressive.

It is important to note that, while the regular health care expenditures within the health care budget are presented transparently, certain health care costs are "hidden" as an unpaid overdue debt (arrears). Since arrears are substantial (they amount to more than 10% of THE) the expenditure data described above do not provide an exact representation of the reality.

All Croatian citizens and residents have the right to health care through the compulsory MHI scheme. Although the breadth and scope of the MHI scheme are broad, patients must contribute to the costs of many goods and services. There are, however, exemptions for vulnerable population groups (e.g. pensioners, the disabled, the unemployed and those on low incomes). Since 2003, a substantial and systematic reduction of the right to free health care services has taken place, through both increasing co-payments to virtually all services and the introduction of rationing of services. Supplemental health insurance is also available, which mainly covers user charges from the MHI system. Certain population groups (e.g. the disabled, organ donors, frequent blood donors, students, and people on low incomes) have the right to free supplemental health insurance membership in the CHIF and their respective contributions are financed from the State budget (over 60% of people with supplemental VHI in the CHIF). Croatia also provides one of the most generous sick leave and maternity compensation packages by international standards, and there are indications that the system may be subject to abuse.

Except for pharmaceuticals, no explicit positive lists of services and goods are in place. The CHIF plays a key role in determining which basic health services are covered under the MHI scheme. Health care providers contracted by the CHIF, both private and public, are automatically included in the National Health Care Network.

The CHIF contracts with individual and institutional health care providers for the provision of health care services within the scope of the MHI. A new contracting model is in place for the 2013–2015 period. This was introduced to incentivize health care providers to raise the quality of care and patient satisfaction and to incentivize the provision of certain types of care (e.g. prevention) through a mixture of provider payment mechanisms. As regards paying for hospital care, Croatia uses a modified version of the Australian Refined-DRG (AR-DRG) system, which was fully implemented on 1 January 2009 (replacing fee-for-service payments).

### Physical and Human Resources

In 2012, there were 76 hospital institutions and treatment centres in Croatia. The majority of these were owned either by the State or by the counties, with only nine hospitals and five sanatoriums privately owned. The largest number of hospitals and hospital beds is located in continental Croatia, mainly in the city of Zagreb. Both the counties and the State are responsible for funding capital investments in the facilities they own, although investments are largely uncoordinated and lack strategic planning, and no real assessment of needs and health technology (HTA) are conducted. The technical condition of hospitals varies and information in this area is scarce. A Hospital Master Plan project (funded by the World Bank) aims to determine the future configuration of the hospital system in Croatia (including capacities, network, internal organization, financing, etc.), and was under public debate at the time of writing.

The number of acute beds in Croatia fell by around 11% between 1995 and 2011, and the number of acute beds per 100 000 population, at 351 in 2011, was lower in Croatia than the EU27 average of 383. At the same time, the average length of stay (ALOS) and bed occupancy rates in acute hospitals in Croatia are generally significantly higher than the respective indicators in some of the comparator countries, such as Slovenia and Hungary, as well as in other EU countries. The introduction of the DRG system seems to have been successful in further decreasing the length of stay in both university and general hospitals. Data on the exact number of nursing and elderly home beds are not available, but according to a recent analysis, homes for the elderly and infirm persons operate at close to maximum capacity.

The use of information technology (IT) in health care is increasing, at both primary and secondary care levels. Since 2001, Croatia has been developing an e-health information system, with its aims being interoperability between the IT systems of health care providers, the CHIF and public health bodies, and the provision of real-time data on each patient and provider. Although integration of IT in primary health care has been completed, 80% of hospitals still have independent IT systems that are not fully integrated into the national hospital information systems.

The number of physicians per 100 000 inhabitants increased from around 212 in 1990 to 299.4 in 2011, but this is still substantially lower than the EU27 average of 346. There is a perceived shortage of physicians, especially in family medicine, and shortages are also observed in rural areas and on the islands. The number of nurses per 100 000 inhabitants in Croatia in 2011 was 579, well below the EU average of 836, and the ratio of nurses to physicians, at approximately 2:1 in Croatia, was lower than the same ratio in the EU15 (2.3:1). Nevertheless, unemployment was recorded among this category of medical professionals. Increased migration of health workers to other EU countries was expected after Croatia's EU entry. This related particularly to nurses, due to the lack of employment opportunities in Croatia. At the time of writing, no information on the actual trends was available.

### Provision of Services

The provision of public health services is organized through a network of public health institutes, with one national institute and 21 county institutes. A number of national programmes are currently in place. The Mandatory Vaccination Programme, in place since 1948, is the most important and most successful preventive health



programme in the country. The Early Cervical Cancer Detection Programme, launched in late 2012, is one of the most recent national public health programmes. Primary care physicians (GPs, paediatricians and gynaecologists) are usually patients' first point of contact with the health system. Each insured citizen is required to register with a GP (adults) or a paediatrician (children), whom they can choose freely. Reflecting an EU recommendation, all practising GPs are required to specialize in family medicine by 2015. However, patients often skip the primary care level and seek health care services directly at hospitals and, so far, there have been no attempts to establish integrated care pathways. The share of specialized consultations among all CHIF-contracted ambulatory care consultations (i.e. primary and specialized care) was 23% in 2012, which may be an indication that some specialized care was used inappropriately. The introduction of "concessions" aimed at reforming the existing solution of rentals and privately contracted physicians seems to have weakened the continuity of care. There are not many group practices and interdisciplinary teams in primary health care. However, since 2013, GPs have been encouraged by the CHIF to create group practices (with financial incentives). Before the reorganization of emergency care, which started

in 2009, the provision of outpatient emergency medical services (EMS) was fragmented. The reform introduced a model of a country-wide network of County Institutes for Emergency Medicine. The next important reform step is the integration of all hospital emergency services into one emergency care hospital department. In about a third of general hospitals, emergency services are not yet integrated in one department; it is difficult to provide hospital EMS for patients with multiple symptoms and waiting times for patients are longer.

There is currently one pharmacy per 4000 inhabitants in Croatia, compared to one pharmacy per 3000 inhabitants in the EU on average. Pharmaceuticals are available free of charge for certain population groups and particular conditions; otherwise, co-payments are applied.

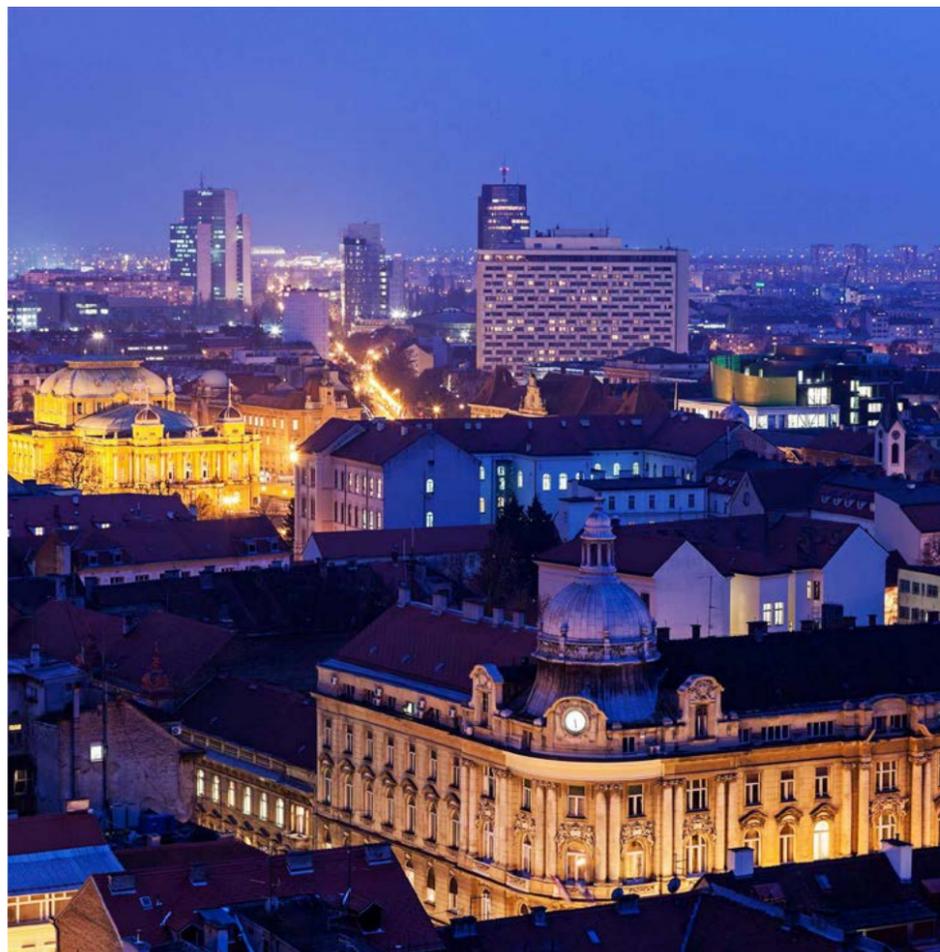
Rehabilitation services cover three types of care: orthopaedics, balneology and physical medicine. Although both the number of rehabilitation beds and physical and rehabilitation medicine specialists per 100 000 inhabitants is very high in Croatia compared to other EU Member States, the ratio of physiotherapists and other rehabilitation professionals is relatively low. There have also been shortcomings in education, which has been focused on rheumatology rather than rehabilitation, and in the quality and efficiency of rehabilitation medicine.

Long-term care (LTC) is mainly organized within the social welfare system. It is currently mostly provided in institutional settings. There is a considerable coverage gap regarding the estimated number of dependent people and those who have actually received some type of care, with shortages of formal services in the institutionalized context. Croatia is among the top three countries in Europe with the greatest scale of informal care, with the age cohort 50–64 bearing the greatest burden of caring for the elderly. Virtually no services are available for informal carers. Waiting lists for county nursing homes are long, while private providers are financially unaffordable to many. The 2013 Social Care Act includes

provisions for generational solidarity, the objectives of which are to keep the elderly in their own homes and with their family; to promote their social inclusion; and to improve their quality of life by developing and expanding non-institutional services and volunteering. A new draft, currently under public debate, proposes, among other features, a guaranteed minimum income as a new form of social welfare compensation.

There is no adequate system of palliative care and only a few institutions provide some forms of palliative care. The Strategic Plan for Palliative Care in Croatia, adopted in July 2013, plans to increase the availability of palliative care resources in the country (both infrastructure and human resources).

Mental health services are mainly provided in institutions and the number of psychiatric beds has been increasing in recent years. Community mental health care (except for certain programmes such as addiction prevention) remains underdeveloped, and specific and well-organized



programmes of mental health care in the community are lacking.

Croatia has no defined legal framework for complementary and alternative medicine (CAM). Only acupuncture is recognized as a medical treatment and may be reimbursed by the CHIF, but only under certain conditions.

### Recent Reforms

The focus of reforms that were implemented between 2006 and 2013 was the financial stabilization of the health care system. The key reform, implemented between 2008 and 2011, contained a number of measures: diversification of public revenue collection mechanisms through the introduction of new mandatory and complementary health insurance contributions; increases in co-payments; and measures to resolve accumulated arrears. Other important reforms included changes in the payment mechanisms for primary and hospital care; pharmaceutical pricing and reimbursement reform; and changes to health care provision (e.g. emergency care reform).

The launch of many of these reforms was not difficult as for many of them policy options were not publicly discussed and no comprehensive implementation plans were developed. However, as a result, many of them soon faced serious implementation problems and some were only partially implemented.

Little research is available on the policy process of health care reforms in Croatia. However, it seems that reforms often lack strategic foundations and/or projections that can be analysed and scrutinized by the public, and there is little evaluation of the outcomes of reforms. Planned reform activities for 2014–2016 will mainly be directed at achieving cost-effectiveness in the hospital sector.

### Assessment of the Health Care System

Since 2000, health policy goals in the Croatian health care system have shifted their focus from reducing the prevalence of specific diseases to achieving health outcomes. The key objectives of the health system for the period between 2006 and 2012 can be found in two strategy documents: the National Strategy of Health Care Development 2006–2011 and the National Health Care Strategy 2012–2020. While the latter is currently being implemented, the 2006–2011 Strategy has not been

formally evaluated.

The breadth of public coverage is virtually universal, the scope of MHI is broad, and sick leave compensation is one of the most generous by international standards. However, the depth of MHI cover has been eroding since the early 2000s, weakening the financial protection of the health care system. Healthcare financing is highly dependent on the employment ratio and wage level (financing mainly comes from employment-related social insurance payments) and, thus, on the economic situation. Health expenditure per head in Croatia being lower than in most western European countries may, to some extent, explain the existence of informal payments and corruption in health care. Health care financing is based on regressive sources (e.g. insurance contributions, indirect taxation) and this regressive nature seems to have increased in the first decade of the 2000s. The impact of the health insurance reform of 2008–2011 on the regressive character of health care financing remains unclear.

There are no recent studies of user experiences with the health care system and it is therefore difficult to assess whether public perception has changed. Long waiting times have been a long-standing reason for low user satisfaction with the Croatian health care system, but the development of e-health may bring waiting times under control.

Studies of equity of access among the Croatian population are rare. Geographical distribution of the health care infrastructure and other resources varies and people living in more remote areas, such as the islands off the Adriatic coast, may find it harder to access health care. Apart from the place of residence, access also varies by income, education level, activity, age and sex, as evidenced by differences in self-reported unmet need for medical care.

Overall, health outcomes in Croatia can be considered to be rather good and improvements in population health may, to some extent, be attributable to the health system (e.g. preventive measures). However, few data are available in this area. Allocative efficiency seems to be rather poor and so far little has been done to improve this. On the other hand, technical efficiency seems to be quite good and has been increasing. Again, information in this area is incomplete. Transparency around the high-level decision-making in the health care system and the availability of information for patients are other areas where improvements could be made. Overall, systematic evaluation and assessment of the health care system is lacking and hinders assessment of its performance.