



## Country Document 2013

# Pensions, health and long-term care

## Croatia

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On behalf of the  
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Gesellschaft für  
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## **1 Executive Summary**

The aim of the proposed pension reform, which is currently in the process of a public debate, is to improve the status of pensioners, while ensuring financial sustainability and social adequacy of pensions. The most important proposed amendments concern the pension indexation formula, expansion of possibilities to work during retirement, minimum pensions, pension calculation formula, conditions of retirement for those with long service years, calculation of old-age pension for those with long service years, for those who retire after 65 years of age, sanctioning of early retirement, separation of pensions based on contributions from part of the pension financed from the state budget and separate rules for indexation of pensions based on general and special regimes.

Two main weaknesses of the Croatian pension system are financial sustainability and social adequacy of pensions. Even though the new Draft Pension Insurance Act identifies both as the overarching goals of the latest pension reform, it is hard to imagine how they could be simultaneously achieved in times of persevering economic recession. Without the activation of the labour market and economic growth, yet another partial pension reform and adjustment of the pension parameters may not be enough to ensure achievement of these goals. In addition, some of the most important amendments, such as increase of the second pillar contribution, increase of retirement age in accordance with life expectancy and recognition of the pension supplement to multi-pillar participants are (again) postponed.

In 2013, new Compulsory Health Insurance Act entered into force. It was adopted mainly with a view of aligning the Croatian legislation with the Patients' Rights Directive and it does not bring about any profound changes. A new model of financing of primary health care have been implemented in 2013, as well as rules for referral to specialist examinations and hospital treatment, with a view of increasing the efficiency within primary health care and alleviate the pressure at secondary and tertiary levels. Sanation (financial rehabilitation) of hospitals and other health care institutions started in 2012, with approximated cost around HRK 3 billion. Operation and financing of hospitals constantly generates debts for the entire health system. Out of the total budget for health of HRK 21 billion, HRK 11 billion or 3.3% of GDP is spent on the operation of hospitals. Removing existing inefficiencies in hospital management is required in the short run in order to decrease the debt of the hospitals. Reconsidering the model of financing of hospitals seems inevitable in the long run.

The persevering problem of long-term care in Croatia is that it is dispersed between health and social welfare system, which has a negative impact on accessibility, recognisability and adequacy of the provided services. Given the lack of adequate records, it is impossible to estimate exactly how much public funding is currently spent on long-term care policies. In 2011, 17.7% of population was 65+, and this ageing trend is expected to continue. In addition, ageing of the elderly part of population is expected: by 2020, more than 5% of the entire population will be older than 80 years and by 2050 one out of ten inhabitants will be older than 80. Population ageing is one of the most overwhelming trends in the Croatian society, which will continue to put a significant impact on the formulation of all social protection policies, especially health and long-term care policies.

## 2 Pensions

### 2.1 System description

#### 2.1.1 Major reforms that shaped the current system

The key reform of the pension system took place in 2002, based on legislation enacted in 1998. All subsequent reforms include only partial and ad hoc measures, aimed at correcting some of the negative consequences of the initial reform.<sup>1</sup>

In 2002, compulsory and voluntary pension insurance based on individual capitalised savings (second and third pillar) became operational. Current financing based on generational solidarity remained within the compulsory first pillar (“PAYG”). The activity of accumulation of capital within the second and third pillar is separate from the activity of payment of pensions. Pension companies manage pension funds (compulsory, open or closed voluntary funds); whereas pension insurance companies are in charge of the payment of pensions from compulsory and voluntary pension insurance. The transition cost of the reform, i.e. the shortage within the first pillar ensued as a result of the reduction of the first pillar contributions and continues for decades. This shortage is still covered from the state budget (4.2 billion HRK in 2010).

In 2007, pension supplement of 4-27% on pensions realised after the pension reform (i.e. in 1999 and later) was introduced to solve the problem of ‘old’ (retired pre-1999) and ‘new’ (retired after the reform in 1999), i.e. to compensate for the considerably lower pensions of ‘new’ retirees. However, only first pillar beneficiaries were entitled to the supplement, which is paid from the state budget. In July 2011, there were approximately 300,000 of such beneficiaries, with the average supplement in the amount of HRK 351 (approximately EUR 50).<sup>2</sup> With effect from 1 January 2012, the supplement was integrated in the amount of pension. Equalisation of the regime for pensions and supplements was aimed at enhancing the pensioner’s position and alleviating differences between ‘old’ and ‘new’ pensioners.

As of 2010, the retirement age for old age and early pension between men and women is gradually equalising, by raising the retirement age for women for 3 months each year. Full equalisation will be completed by 2030 (65 for old age pension and 60 for early retirement). In 2010, the amount of monthly deduction for early retirement was adjusted once more (following three amendments in the period from 1999 to 2008). The decrement varies according to the accrued pension service; from 0.15% to 0.34% per month of early retirement (i.e. permanent decrement from 1.8% to a maximum of 4.08% per year, early retirement period is up to five years). The extension of the working life is financially stimulated with 0.15% increase of the amount of pension per month of later retirement, up to a maximum of five years, i.e. a maximum of 9% increase is possible.

In 2011, legislative amendments aimed at improving the status of optional multi-pillar participants (i.e. those who were between 40 and 50 years of age in 2002). Those who were already retired were given the possibility to request recalculation of pensions in accordance

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<sup>1</sup> For a complete overview of the changes in the pension system post-2002 reform, see Nestić, Danijel (ed.) (2011) *Izazovi i mogućnosti za ostvarenje primjerenih starosnih mirovina u Hrvatskoj* (Challenges and Possibilities for the Realisation of Adequate Old-age Pensions in Croatia), Ekonomski institut Zagreb, 13-16, retrieved on 10 October 2013 at <http://www.eizg.hr/Download.ashx?FileID=7d4509d2-866d-47b7-8214-a2cbf38ff8b9>.

<sup>2</sup> Statement of reasons accompanying the Draft of the Act on Amendments to the Pension Insurance Act of 2011 (Official Gazette of the Republic of Croatia, *Narodne novine* no. 114/11).

with the rules applicable as they were insured only within the first pillar. For those who are still employed, a possibility to abandon the second pillar at the time of retirement was prescribed. The justification of this measure was seen in the need to improve the material and social status of such pensioners, whose pension was lower by HRK 300 to 1,500 than the pension of pensioners under the first pillar. This substantial difference resulted from the fact that they were not entitled to pension supplement (as explained above), but also due to the fact that the majority of such pensioners are women who retired early from mostly low paid jobs and who paid contributions to the second pillar for a very short time. Their average retirement age is 55-57 years, whereas the expected lifetime upon retirement is 30 years. As a result, the average amount of pension acquired from the second pillar is extremely low: HRK 107.17 (in addition to the average amount of pension from the first pillar of HRK 1,965.83<sup>3</sup>). Records show that around 1,000 beneficiaries opted for recalculation.<sup>4</sup> Additional 95,000 optional multi-pillar participants who are still employed are eligible for the transfer at the time of retirement, i.e. until 2027 at the latest. The majority of them will probably decide to abandon the second and 'return' to the first pillar. Staying in the second pillar will be a more favourable option only for a limited number of beneficiaries who are either not entitled to supplement or whose supplement would be lower than the amount of pension from the second pillar or for those who receive survivors' pension from the first pillar, while retaining the right to payment of their personal pension from the second pillar.

In 2013, the Government started to prepare a completely new Pension Insurance Act.<sup>5</sup> Public debate is currently in process. The aim of the reform is to improve the status of pensioners, while ensuring financial sustainability and social adequacy of pensions. The most important proposed amendments concern the pension indexation formula, expansion of possibilities to work during retirement, minimum pensions, pension calculation formula, conditions of retirement for those with long service years, calculation of old-age pension for those with long service years, for those who retire after 65 years of age, sanctioning of early retirement, separation of pensions based on contributions from part of the pension financed from the state budget and separate rules for indexation of pensions based on general and special regimes.

### 2.1.2 System characteristics

The general pension insurance scheme is currently regulated under the Pension Insurance Act,<sup>6</sup> the Act on Compulsory and Voluntary Pension Funds,<sup>7</sup> and the Act on Pension Insurance Companies and Pension Payments based on the Individual Capitalised Savings.<sup>8</sup>

The pension system is based on three insurance pillars:

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<sup>3</sup> Data from December 2010, provided in the Statement of Reasons accompanying the Draft Act on Amendments to the Pension Insurance Companies and Pension Payment based on Individual Capitalised Savings (Official Gazette of the Republic of Croatia, *Narodne novine* no. 114/11). HRK 107.17 = EUR 14.16; HRK 1,965.83 = EUR 259.84; InforEuro monthly currency rate for 9/2013; [http://ec.europa.eu/budget/contracts\\_grants/info\\_contracts/inforeuro/inforeuro\\_en.cfm](http://ec.europa.eu/budget/contracts_grants/info_contracts/inforeuro/inforeuro_en.cfm), accessed 11 October 2013.

<sup>4</sup> Only 52 beneficiaries received pension from the compulsory pension insurance (II pillar) in June 2013, as opposed to 955 in July 2011. HANFA, Monthly report August 2013; Vukorepa, Ivana (2012), Mirovinski sustavi: Kapitalno financiranje kao čimbenik socijalne sigurnosti, Sveučilište u Zagrebu, 344.

<sup>5</sup> Draft Pension Insurance Act, retrieved at <http://rasprava.mrms.hr/bill/javna-rasprava-o-naertu-prijedloga-zomo/print/> on 18 October 2013.

<sup>6</sup> Official Gazette of the Republic of Croatia, *Narodne novine* no.102/98, 127/00, 59/01, 109/01, 147/02, 30/04, 117/04, 92/05, 79/07, 35/08, 121/10, 130/10 – consolidated version, 61/11, 114/11, 76/12 and 112/13.

<sup>7</sup> Official Gazette of the Republic of Croatia, *Narodne novine* no. 49/99, 63/00, 103/03, 177/04, 71/07, 124/10, 114/11 and 51/13.

<sup>8</sup> Official Gazette of the Republic of Croatia, *Narodne novine* no. 106/99, 63/00, 107/07 and 114/11.

1. Compulsory pension insurance based on generational solidarity – “PAYG” (pillar I)
2. Compulsory pension insurance based on individual capitalised savings (pillar II)
3. Voluntary pension insurance based on individual capitalised savings (pillar III).

As of 1 January 2002, all employed persons are placed into three categories within the new pension system:

- i) Compulsory multi-pillar (first and second pillar) participants: Employees under the age of 40 at the time of the reform;
- ii) Optional multi-pillar (first and second pillar) participants: Employees in the age group between 40 and 50 at the time of the reforms, who were given the option to be insured only within the system of generational solidarity (first pillar), or in both pillars (first and second) (in that case they would have the same status as the category described under point a). The choice of the system was permanent and could not be changed until legislative amendments in 2011 relaxed this regime.
- iii) Compulsory first pillar participants: employees above the age of 50 at the time of the reform.

All employees, regardless of their age, can be included in the voluntary pension insurance system based on individual savings (pillar III).

The pension insurance covers the risks of old age, death and disability of the insured. Pensions under general provisions comprise old-age pensions (including early pensions), disability pensions and survivors' pensions. Other benefits include professional rehabilitation, compensation for bodily injury and travel expenses incurred in connection with the realisation of those rights.

The pension formula is the product of personal points (PP), variable pension factor according to the type of pension (PF; 1.00 in case of old-age, early retirement and disability pensions) and the actual pension value (APV):  $\text{pension} = \text{PP} \times \text{PF} \times \text{APV}$ . The actual pension value is the determined amount of pension for one personal point.

In September 2013, there were 313,752 disability pension beneficiaries or 25.7% of all pensioners. The question is whether such high share of disability pensions is due to lenient conditions or abuses in procedure. The Government adopted an Ordinance on Amendments to the Pension Insurance Act in September 2013,<sup>9</sup> establishing a central office within the Croatian Institute for Pension Insurance for the revision of 'suspicious' final disability decisions. The office is entitled to conduct regular and extraordinary medical check-ups to determine the health condition of recipients of such pensions.

Around 15% of the overall number of pensioners are the so-called 'privileged pensioners', who stand to receive pension under privileged conditions based on their status in accordance with special laws. HRK 6.7 billion or 19% of all pension expenditures in 2013 were designated in the state budget for the payment of those pensions. The largest cohort among 15 categories of privileged pensioners are the war veterans from the Homeland War.<sup>10</sup>

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<sup>9</sup> Ordinance on Amendments to the Pension Insurance Act, Official Gazette of the Republic of Croatia, *Narodne novine* no. 112/13.

<sup>10</sup> 1.5% of GDP in 2010 was distributed for Homeland War Veterans, which makes it the largest privileged pension programme (out of over 2% of GDP designated for all privileged pensions). The World Bank (2011) Croatia: Policy Options for Further Pension System Reform, retrieved at [http://siteresources.worldbank.org/INTCROATIA/\\_Resources/Croatia\\_Policy\\_Notes-Pension.pdf](http://siteresources.worldbank.org/INTCROATIA/_Resources/Croatia_Policy_Notes-Pension.pdf) on 10 January 2012.

According to the latest announcements, special schemes will probably not be integrated into the general pension system and only one measure is meant to address the differences between the two. Namely, pension adjustment will be different for the part of the pension system which is entirely funded through contributions, and for the other part which is tied to the budget. The latter pensions would not automatically be subject to the adjustment formula, but would instead follow the destiny of the budget, meaning that they will be adjusted only when the budget allows it.<sup>11</sup>

In 2012, pension expenses were 35,145 billion HRK (approximately EUR 4 billion) or 10.3% of GDP. Only 54% of those expenses is covered from collected contributions, whereas the remaining 46% is covered from the state budget.

The pension system is financed through contributions and budget transfers. Mixed financing (public and private) is evident through the pillar structure. The rate of contribution for the insured persons within the first pillar (based on generational solidarity) is 20%. The rate of contribution for the insured persons both within the first and the second pillar is split: 15% in the first pillar and 5% in the second pillar. The basis for calculation is the wage or other earnings (in case of employed persons) or income (in case of self-employed or other categories of insured persons). The contribution is paid up from the basis for calculation.

Institutions and structures involved in the operation of the pension system include the Croatian Institute for Pension Insurance, pension companies who manage the compulsory and voluntary pension funds, pension insurance companies in charge of payment of pensions from the second and third pillar (currently only one), REGOS (Central Registry of Affiliates) and HANFA (Croatian Financial Services Supervisory Agency).

The Croatian Institute for Pension Insurance is a public institution established under the Pension Insurance Act with the main task of implementing the rights of employees, farmers, craftsmen and other persons from the compulsory pension insurance based on generational solidarity.

The Central Registry of Affiliates (REGOS) is a public institution in charge of providing technical support (unified personal accounts management) for the second pillar of pension insurance.

The Croatian Financial Services Supervisory Agency (HANFA) is an independent supervisory authority whose scope of activities and competence cover the supervision of financial markets, financial services and supervised entities providing those services.

There are currently eight registered pension companies (incorporated either as joint stock companies or companies with limited liability) who manage compulsory and voluntary pension funds. There are four compulsory pension funds with 1,678,931 participants, six open voluntary pension funds with 199,540 participants and 17 closed voluntary pension funds (occupational retirement schemes) with 23,048 participants.<sup>12</sup>

At the end of August 2013, there were 1,500,744 insured persons registered with the Croatian Institute for Pension Insurance. According to age, there were 47.95% insured persons under 40 years of age, 26.14% between 40 and 50, 21.66% between 50-60 and 4.45% under 60 years of age. At the same time there were 1,219,562 pension beneficiaries<sup>13</sup>, with the old-age

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<sup>11</sup> Minister of Labour and Pension System Mr. Mirando Mrsić, Banka.hr, 13 September 2013.

<sup>12</sup> Croatian Financial Services Supervisory Agency (HANFA), Monthly report, August 2013, retrieved at <http://www.hanfa.hr/HR/nav/110/mjesecno-izvjesce.html> on 10 October 2013.

<sup>13</sup> This number includes pensions under general regime, pensions of military and police officers and other authorised officials, pensions of war veterans from the Homeland War and pensions under bilateral international agreements with Bosnia and Herzegovina.

dependency ratio at 1:1.23. Average pension for all pension beneficiaries was HRK 2,430.71,<sup>14</sup> but there are significant differences between the amount of pension under general regime and under certain special regimes. For example, the amount of average pension under general regime was HRK 2,223.20 (including old-age, early retirement, disability and survivor's pensions), whereas the amount of pension under special regime for war veterans was HRK 5,421.79, which is more than double.<sup>15</sup> Average old-age pension for 40+ years of service is HRK 3,323.72, which results in a replacement rate in the average salary of 60.39%. However, these figures could be misleading, first, because average pensioner has only 30 years of service; and second, because average pension of new pensioners in 2013 was HRK 2,329.32, which results in a replacement rate of only 42%.

In 2013, over HRK 35 billion were designated in the state budget for payment of pensions, which is about 25% of all budget expenditures.<sup>16</sup> In the first semester 2013, overall expenditure for social protection amounted to 37.92%, whereas expenditure for health was 19.71%.<sup>17</sup> Total social protection benefits expenditure in 2010 amounted to 20.3% of GDP (6.9% for sickness/health care; 3.6% for disability; 7.7% old-age and survivor's pensions; etc.). General government expenditure for health in 2011 was 6.2% of GDP and for social protection 15.0%. According to the 2013 Economic Programme of Croatia, the most important group of general government budget expenditure comprises social benefits (including expenses for pensions and health care, but also child allowance, maternity leave allowances, active labour market policy measures, etc.), which are projected to decline in the forthcoming period, from 13.6% of GDP in 2013 to 12% of GDP in 2016. Exactly how this reduction is to be accomplished without the rise of GDP is unknown.

In 2001, the share of population 65+ was 15.7%. According to the latest 2011 population census, that share is still on the rise and was 17.7%. Some projections estimate that it could rise up to 25-32% in 2051.<sup>18</sup> Average age of population in 2012 was 42.0 years, which places Croatian population among the oldest nations in Europe (in comparison, in 1953 it was 30.7).<sup>19</sup> If this trend continues, the current dependency ratio of 1:1.18 without any interventions could lead to the decline of replacement rates for pensioners in 2040-2050 to a mere 22% of the average salary, which is below poverty line.

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<sup>14</sup> EUR 319.2, InforEuro monthly currency rate for 10/2013 (1 EUR = 7.6513 HRK), [http://ec.europa.eu/budget/contracts\\_grants/info\\_contracts/inforeuro/inforeuro\\_en.cfm](http://ec.europa.eu/budget/contracts_grants/info_contracts/inforeuro/inforeuro_en.cfm), accessed 11 October 2013.

<sup>15</sup> For years after the end of the Homeland War there are discussions and doubts about possible abuses in the procedure for recognition of the status of a war veteran and pertaining rights. This highly politicised issue came to the fore once more at the end of last year, when the government decided to publish the Registry of the Homeland War veterans. Unverified estimates claim that up to 25-30% entries of around 500,000 registered persons are based on falsified documentation. Following the publication, thousands of complaints about 'false' veterans were raised, which resulted in currently 30 criminal charges for fraud and counterfeiting of official documents. See more Jutarnji list, 22 September 2013.

<sup>16</sup> This expenditure keeps a steady level since 2009. In comparison, expenditure for health is at HRK 20 billion since 2009. The largest part of health expenditure is comprised of expenditure of the Croatian Institute for Health Insurance (including primary and hospital health protection, medication, supplementary health insurance). See Ministry of Finance, Statistical reports (State Budget – January – August 2013), retrieved at <http://www.mfin.hr/hr/vremenske-serije-podataka> on 13 October 2013.

<sup>17</sup> Ministry of Finance, Execution of State Budget in the first semester 2013, Zagreb, September 2013, retrieved at <http://www.mfin.hr/adminmax/docs/IZVRSENJE%20DRZAVNOG%20PRORACUNA%20ZA%20PRVO%20POLUGODISTE%202013..pdf> on 11 October 2013.

<sup>18</sup> Bejaković, Predrag, Mirovinski sustav u RH: problem i perspektiva, Okrugli sustav Banke i Instituta za javne financije, Zagreb, 19. January 2011 (powerpoint presentation).

<sup>19</sup> Croatian Bureau of Statistics, retrieved at <http://www.dzs.hr/> on 13 October 2013.

Pension indexation currently takes place according to the so-called “Swiss formula”, whereby pensions are indexed every six months at the rate which represents 50% of the rate of fluctuation of the consumer price index and 50% of the rate of fluctuation of the wage increase.<sup>20</sup> This formula should be replaced with the more equitable solution: a rotating formula is proposed in the new Draft Pension Insurance Act, with the ratio of 70:30, whereby one parameter will concern wage increase and the other consumer price index increase. The share 70% will refer to the parameter which was more favourable in the previous period.

Increase of the second pillar rate of contribution is postponed. The precondition for it is the economic recovery, i.e. at least 2 million employed persons and the rise in GDP over 2% for a certain period.

Compulsory pension funds have an average annual real yield between 2.5 and 3%, which supersedes the expectations from the beginning of the pension reform.<sup>21</sup> Whereas HRK 41 billion was paid in through contributions, the total assets have reached HRK 51 billion. However, pension or financial literacy of the general population is very low, even regarding the basic information, such as the status of their pension account. The average amount of savings in the second pillar is around HRK 34,000, but there are no available information regarding the share of accounts which are not active. The latest reform proposals should allow for a more diversified structure of investment for the compulsory pension funds, with three sub-portfolios, according to remaining number of years until pension (A, B and C; target date or lifecycle funds).

Minimum pension (the exact translation of the term appearing in current legislation is ‘the lowest pension’)<sup>22</sup> is the pension to which beneficiary is entitled if his average salary, used to calculate her/his average personal points (PP), was lower than the average salary in the Republic of Croatia. The minimum pension is not means-tested, but depends on the number of pension service years and is applicable only within the first compulsory pension pillar based on generational solidarity. For each year of pension service, the lowest pension is calculated in the amount of 0.825% of the average gross salary of all employes in Croatia in 1998, according to the data of the Croatian Bureau of Statistics. In July 2013, there were 186,160 beneficiaries of the lowest (minimum) pension, with 24 years of service on average and average lowest pension of HRK 1,375.23. Since January 2013, the actual lowest pension value for one year of pension service (ALPV; *Cro.* AVNM) amounts to HRK 58.47 (in comparison, the actual pension value (APV; *Cro.* AVM) is HRK 60.32). The pension supplement, which was introduced in 2007, is added to the amount of pension based on total pension service years and average salary, i.e. it is not added to the amount of the guaranteed lowest pension. Where the amount of pension based on service years and average salary together with the pension supplement is less than the amount of the lowest (minimum) pension, the beneficiary is guaranteed payment of the lowest pension. Where this calculation exceeds the amount of the lowest (minimum) pension, beneficiary is paid the amount of pension and the supplement, whereas the payment of the lowest (minimum) pension is discontinued.<sup>23</sup> Although it is true that the number of the new beneficiaries of the lowest pension according to the general rules declines since 2008, the overall number of the lowest pension beneficiaries is still on the rise (e.g. from 130,522 beneficiaries in 2006 to 186,160 beneficiaries in 2013, approximately 15% of all pensioners). There are no evidence that the decline of new beneficiaries is due to the integration of the pension supplement.

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<sup>20</sup> From 1 January 2010 to 31 December 2011 pension indexation was suspended, due to economic reasons.

<sup>21</sup> Banka.hr, 29 April 2013.

<sup>22</sup> The new Draft Pension Insurance Act uses the term ‘minimum’ pension.

<sup>23</sup> Article 2 (6) of the Act on Supplement to Pensions Acquired under the Pension Insurance Act, Official Gazette of the Republic of Croatia, *Narodne novine* no. 79/07 and 114/11.

Instead of the lowest pension, basic pension is the protective category for optional and compulsory multi-pillar beneficiaries. Basic pension is calculated according to the years of service completed after 1 January 2002, according to the formula which takes into account 0.25% of the average gross salary of all employed, 25% of the actual pension value (APV) and personal points at the moment of retirement.

Contributions and benefits for part-time employment are calculated pro-rata temporis, whereas career breaks due to child care, maternity, sick leave, etc. are taken into account as service time. Part-time employment of certain categories (parents working half of the full working time after completion of compulsory maternity leave, or shortened working hours due to the need for increased care for a child, or a parent of a child with severe developmental disability working half of the full working time) is deemed as full-time employment for the purposes of calculation of service time. However, reduced income during these periods may reflect on the calculation of the amount of pension.

Theoretical projections show that the initial net replacement rate in 2012, for a “typical” male worker insured only within the first pillar, retiring with 60 years of age and 40 years of service and with average salary is 54%.<sup>24</sup> By 2027, replacement rate drops to 44%. Multi-pillar pensions are more stable regarding the net replacement rate, which remains at a steady level of 36-37%, although the initial net replacement rate is lower than for only first pillar participants (36%). The reason may lie in the formula for calculation of the basic pension (from the first pillar) and the fact that multi-pillar participants are not entitled to the pension supplement. The basic pension calculation formula actually leads to devaluation of the part of the pension received from the first pillar, bearing in mind the fact that three quarters of contributions were paid in the first pillar. In comparison to this hypothetical situation, average workers, who enter into old-age retirement have lower replacement rates, primarily because they have less years of service. The following Table shows net replacement rates for average workers in 2012 and 2052.\*

Table 1: Net replacement rates for average workers in 2012 and 2052

<b>2012</b>				
	<b>% average salary</b>	<b>Years of service</b>	<b>Retirement age</b>	<b>Initial net replacement rate</b>
Female	95%	31	60	40.1%
Male	105%	36	65	48.2%
<b>2052</b>				
	<b>% average salary</b>	<b>Years of service</b>	<b>Retirement age</b>	<b>Initial net replacement rate</b>
Female	100%	35	65	31.5%
Male				

\* adapted from Nestić, Danijel (ed.) (2011) *Izazovi i mogućnosti za ostvarenje primjerenih starosnih mirovina u Hrvatskoj*, Ekonomski institut Zagreb.

### **2.1.3 Details on recent reforms**

Public debate on the new Draft Pension Insurance Act is open until 18 October 2013. Consultations on the new Draft Act on Compulsory Pension Funds, Draft Act on Voluntary Pension Funds and Draft Act on Pension Insurance Companies is open until 23 October 2013.

<sup>24</sup> Nestić, op. cit. (FN 1).

The new Draft Pension Insurance Act includes the following reform proposals:

- Insured persons with long service years, but who have not completed the required years of age for retirement are not penalised for early retirement, i.e. they can retire with 60 years of age and 41 years of service.
- Expansion of the possibility to work for pensioners without discontinuation of the pension payment (so far only disability pensions due to professional incapacity to work were excluded) for old-age pensioners who continue to work part-time immediately upon retirement or enter into part-time employment during retirement; beneficiaries of disability pensions due to partial incapacity for work; pensioners who perform seasonal agricultural jobs; pensioners in cottage industries.
- Compulsory control examinations are envisaged in case of general incapacity for work, to determine potential changes in the health condition and working condition of the recipients of disability pensions (so far, there was no such obligation).
- Amendments to the formula for calculation of basic pension are meant to improve the unsatisfactory existing legislative solution, in which the calculation of the basic pension does not reflect the actually paid contributions to the first pillar, which leads to inequalities regarding the amount of pensions between pensioners with comparable years of service and salaries, i.e. contributions. Basic pension factor is introduced in the calculation formula. It is established for each year, and it represents the average share of contribution rate for multi-pillar beneficiaries in the total contribution rate for the period from 1 January 2002 until the year of retirement. Basic pension personal points are the product of personal points determined according to the pension service years from the time of joining the second pillar and the basic pension factor for the calendar year in which the beneficiary acquires the right to retirement.
- Amendments to the formula for calculation of minimum pension are aimed at redefining this institute as one of the instruments for the social protection of pensioners. For each pension service year minimum pension is determined in the amount of 100% of the actual pension value (AMV) at the moment of retirement.
- Formula for calculation of pensions acquired under special rules ('privileged pensions') is determined in accordance with the rules established in the Pension Insurance Act. Actual pension value (AMV) for privileged pensions is determined by the Government at the proposal of the Minister in charge of the pension system and with the consent of the Minister of Finance. Special rules for pension indexation apply (i.e. not the rotating formula envisaged for general pensions, but depending on the condition of the budget: if the real GDP growth is more than 2.0% in the last three consecutive quarters and if the state budget deficit is less than 3%).
- Rotating pension indexation formula is applied instead of the 'Swiss' formula, whereby the annual pension growth is the sum of the rate of fluctuation average consumer price index in the preceding year and the rate of fluctuation of the average gross salary of all employees, with the application of a rather complicated set of rules depending whether the share of the rate of fluctuation of the consumer price index represents less than 45%, between 45-55% or more than 55% in this sum. The resulting annual pension growth respectively is the sum of 30% price increase and 70% wage increase; or 50% price increase and 50% wage increase; or 70% price increase and 30% wage increase.

The new Draft Act on Compulsory Pension Funds, Draft Act on Voluntary Pension Funds and Draft Act on Pension Insurance Companies should bring about the following most important amendments:

- Diversification of the investment portfolio within the compulsory second-pillar insurance (A, B and C; depending on membership (remaining years of service until retirement) and investment principles).
- Pension companies, companies for the management of pension funds or companies for management of investment funds may establish a voluntary pension fund. The aim is to provide the possibility of mergers between compulsory and voluntary pension companies of the same founders.
- Pension insurance companies will be established only in the form of the joint stock company, with the minimum share capital of HRK 15 million (currently HRK 5 million). Adjustment with the EU *acquis* is envisaged from 31 December 2016, whereby the share capital may not be less than HRK 26.25 million.

## 2.2 Assessment of strengths and weaknesses

### 2.2.1 Adequacy

A study by Nestić/Tomić shows that initial replacement rates in 2012 are 54% for a male beneficiary retiring at 60 years of age with 45 years of service and 59% for a female beneficiary retiring under the same conditions.<sup>25</sup> According to the same projections, in 2052, initial replacement rates for beneficiaries (M/F, 60 years of age) with 45 years of service will drop to 38%, whereas in case of 35 years of service it will drop to 29%. Future replacement rates might significantly drop and the risk of old-age poverty would alleviate if no amendments are made in the pension system.<sup>26</sup> In addition, the gap between 'old' (one pillar) and 'new' (multi-pillar) pensioners will be widened. Gradual increase of the initial replacement rate is to be expected, if the combination of three elements is applied: expansion of the pension supplement to all pensioners, increase of the second pillar contributions and prolongation of the service years. The cost of the application of these measures for the budget would be at first minimal (as it would boil down to covering of the pension supplement), due to low number of multi-pillar pensioners, but it could increase up to 0.9% of GDP by 2050. Application of only one measure would not yield satisfactory results. If only expansion of the pension supplement is applied, the gap between 'old' and 'new' pensioners would not be completely resolved, as it would affect only the level of pensions, not the trends in the replacement rate. In case only 2% increase of the second pillar contribution rate is applied, initial net replacement rate would ameliorate by 6% by 2050, but this measure would not concern the already retired population.

### 2.2.2 Sustainability

The pension system will generate a loss of at least HRK 15.6 billion in 2013, which is approximately at the level from the previous year.<sup>27</sup> Increasing the retirement age and linking

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<sup>25</sup> Nestić, Danijel; Tomić, Iva (2012) *Primjerenost mirovina u Hrvatskoj: što mogu očekivati budući umirovljenici?* (Adequacy of Pensions in Croatia: What Can Tomorrow's Pensioners Expect?) *Privredna kretanja i ekonomska politika* 130/2012, Zagreb, Ekonomski institut.

<sup>26</sup> Ibid (FN 25).

<sup>27</sup> Ministry of Finance, Explanation of the State Budget and financial plans of extra-budgetary beneficiaries for 2013 and projections for 2014 and 2015; retrieved at [http://www.mfin.hr/adminmax/docs/Obrazlozenje\\_proracun\\_2013%20-2015..pdf](http://www.mfin.hr/adminmax/docs/Obrazlozenje_proracun_2013%20-2015..pdf) on 12 October 2013.

it to life expectancy, as well as increasing the rate of contribution to the second pillar seem to be the key measures for improving financial sustainability of the pension system, but neither will be implemented in the upcoming period. Another important measure to improve the sustainability is better supervision of payment of contributions. Currently, the employer is liable to inform the Central Registry of Affiliates (REGOS) about the amount of salary and calculated pension contributions. The employer is also liable to inform the Tax administration about the total amount of due contributions each month and the same authority controls, and if needed, enforces the payment of contributions.

### 2.2.3 Private pensions

Third pension insurance pillar based on individual capitalised savings represents the private, voluntary pension saving in the strict sense. There are around 222,000 participants in open and closed voluntary funds, with approximately HRK 2.4 billion in assets. With currently only 14% of employees or 10% of active population participating in the third pillar, the managers of those funds claim that their number should double in the next three to five years to keep its sustainability. The Government is currently preparing a campaign to raise financial literacy, as well as legislative amendments regarding open and closed pension funds and pension insurance companies.

### 2.2.4 Summary

There are two main weaknesses of the Croatian pension system: financial sustainability and social adequacy of pensions. Even though the new Draft Pension Insurance Act identifies both as the overarching goals of the latest pension reform, it is hard to imagine how they could be simultaneously achieved in times of persevering economic recession. Without the activation of the labour market and economic growth, yet another partial pension reform and adjustment of the pension parameters may not be enough to ensure achievement of these goals. In addition, some of the most important amendments, such as increase of the second pillar contribution, increase of retirement age in accordance with life expectancy and recognition of the pension supplement to multi-pillar participants are (again) postponed.

## 2.3 Reform debates

Reform proposals and public debates were intense during 2011 and 2012, when a series of discussions and round tables were organised within the project *Analysis of the pension system*.<sup>28</sup> Key findings and proposals arising out of these debates were presented in the Croatian Annual Report 2012 and 2011. Two important studies were published in the same period, which were also presented in the previous annual reports: *Challenges and Possibilities for Realisation of Adequate Old-Age Pensions in Croatia*<sup>29</sup> and *Croatia: Policy Options for Further Pension System Reform*.<sup>30</sup> Since both studies have been elaborated in the Annual Report 2012, they will be not further presented here, unless indicated otherwise.

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<sup>28</sup> Working documents and presentations are still available on the project's web-site <http://www.bankamagazine.hr/Projekti/Analizamirovinskogsustava.aspx>.

<sup>29</sup> Nestić, op. cit. (FN 1).

<sup>30</sup> The World Bank (2011), op. cit. (FN 10). The World Bank simulations are based on the PROST model (World Bank Pension Reform Options Simulation Toolkit), used to analyse pension system features in more than 90 countries.

Joining the public debate on the Draft Pension Insurance Act, the World Bank economist Zoran Anušić refers to the need to clearly define what are the goals of the reform, since the proclaimed aims of achieving both social adequacy of pensions and financial sustainability of the pension system are contradictory to each other and their simultaneous implementation should be more precisely defined. According to him, the problem with the new Draft Pension Insurance Act is that it does not deal with what appear to be strategic recommendations from the previous debates, namely the increase of the retirement age in accordance with life expectancy, increase of the contribution rate for the second pillar and the recognition of the right to supplement of 27% to multi-pillar participants as well.

The Independent Croatian Unions (Nezavisni hrvatski sindikati) have also contributed to the public debate on the new Draft Pension Insurance Act.<sup>31</sup> Their comments concern the minimum pension, which in their view requires novel solutions. However, it would be unjust to tie the minimum pension solely to the means test, because many pensioners who receive guaranteed minimum pension have paid in their contributions their entire working life, but due to low salaries the calculation of pension upon retirement was below minimum pension. They should not automatically lose the right to minimum pension if means test is applied. They also warn that due to increasingly used atypical forms of work and long(er) and more frequent career breaks due to unemployment, the institute of minimum pension should be retained and further developed in the future. Another remark concerns insured persons with long service years. According to the latest proposal, they will be entitled to realise their right to old-age pension without penalisation on account of their age, which is a more sensible solution for those categories of insured persons who have paid contributions longer and completed more years of service than many old-age pensioners.

## 3 Health care

### 3.1 System description

#### 3.1.1 Major reforms that shaped the current system

The Health Protection Act,<sup>32</sup> the Compulsory Health Insurance Act,<sup>33</sup> the Voluntary Health Insurance Act<sup>34</sup> and the Patients' Rights Act<sup>35</sup> are key legislative instruments which define the health system in the Republic of Croatia. The Health Protection Act defines principles and measures of health protection, rights and obligations of persons using health protection, institutions and other actors within health protection, organisational features of entities performing health care activities and supervision over those entities. Health protection is based on the principle of universal coverage, continuity, accessibility and integrated approach in primary health care protection and specialised approach in secondary and tertiary health care protection. Health care facilities at primary level include community health centres, institutions for health protection, institutions for medical care and institutions for palliative care. At least one community health centre has to be established at a county level, and it should comprise of all public health service activities whose performance is prescribed at

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<sup>31</sup> Comments available at <http://www.mrms.hr/wp-content/uploads/2013/10/izvjesce-o-savjetovanju-zomo.pdf>, retrieved on 13 October 2013.

<sup>32</sup> Official Gazette of the Republic of Croatia *Narodne novine* no. 150/08, 155/09, 71/10, 139/10, 22/11, 84/11, 154/11, 12/12, 70/12, 144/12 and 82/13.

<sup>33</sup> Official Gazette of the Republic of Croatia *Narodne novine* no. 80/13.

<sup>34</sup> Official Gazette of the Republic of Croatia *Narodne novine* no. 85/06, 150/08 and 71/10.

<sup>35</sup> Official Gazette of the Republic of Croatia *Narodne novine* no. 169/04 and 37/08.

primary level. The institution for health protection is a health facility in charge of providing health protection within a certain health activity at primary level. Institution for medical care is established for medical care and rehabilitation of patients at the instruction of physicians. It can also perform physical therapy at home. Institution for palliative care is comprised of a palliative interdisciplinary team for house visits (doctor, nurse, physical therapist, social worker with special education for terminal patients), pain ambulance, as well as palliative care, daily stay and stationary.

Public health service at primary level is organised through the system of concessions (for general/family medicine, dental protection, protection of pre-school children, women, laboratory diagnostic, occupational medicine, health care at home<sup>36</sup>). Health care facilities at secondary level include policlinics, hospitals and sanatoriums and at tertiary level clinics, clinical hospitals and clinical hospital centres. Pharmaceutical activity is also provided at primary, secondary and tertiary level. Health insurance in Croatia includes compulsory, voluntary (supplementary and additional) and private insurance. Compulsory health insurance is a basic insurance implemented by the Croatian Institute for Health Insurance (HZZO). Supplementary insurance covers the difference in value of health services provided within the basic health insurance, which are not covered by the Croatian Institute for Health Insurance (HZZO). Additional health insurance covers a higher standard of medical care in relation to the standard foreseen by the obligatory medical insurance and a larger scale of rights when compared to obligatory medical insurance. Private health insurance is based on an individual contract between insured person and insurance company. Two basic rights arising from the compulsory basic health insurance include in-kind benefits (right to health protection) and cash benefits (e.g. compensation for sick leave, travel expenses, etc.). Basic health protection is financed by contributions from insured persons, contributions of employers, other contributions based on general and special provision (e.g. a share of compulsory car insurance premiums), contributions for injuries at work, state budget transfers, as well as income from interests, dividends and other income.

Since the reform in 1990, which centralised the system of gathering of contributions and separated the previously unified regional systems of management of health care providers and system of gathering of contributions from the compulsory health insurance, 5 reform waves are clearly discernible: from 1990 to 1993, from 1993 to 2000, from 2000 to 2006, from 2006 to 2008, from 2008 to 2012 and from 2012 onwards.<sup>37</sup>

1993: The Health Care Act and the Health Insurance Act were adopted in 1993, setting the basic principles of the ensuing reforms: accessibility, continuity, inclusion and universal coverage. Decentralisation of health care provision was one of the aims, but was delayed since this was the time of the Homeland War and shortages in the financing of the system. Privatisation of primary health care starts.

2000: A new strategy and plan for the reform of health care and health insurance was adopted, with two principal goals: solving the issues of financing of health care and reorganisation of the system.

2002: A new Health Insurance Act enters into force, decreasing the scope of free health services and introducing the concept of supplementary health insurance. The Croatian

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<sup>36</sup> Home care may be ordered by doctor and it is administered by qualified nurse, in cases of immobility or decreased mobility of a patient, chronic illness in the phase of complication or deterioration, acute or permanent health conditions where the patient is not able to take care of himself/herself without aid, following a complicated surgeries, patients who are terminally ill.

<sup>37</sup> National Health Development Strategy 2012-2020, Official Gazette of the Republic of Croatia *Narodne novine* no. 116/2012.

Institute for Health Insurance (HZZO) is integrated into the central state budget in 2002, which meant that the deficit of HZZO or health care providers are retroactively covered from the budget transfers. Out-of-pocket payments increase, whereas capitation system is implemented in the primary health care. The existing fee-for-service (FFS) hospital payment system was complemented with the payment according to the therapeutic procedure (PPTP) in 2002, which largely expanded in 2005.

2006: a new strategy was adopted with the goal of solving existing problems of the financing of the system. Two lists of pharmaceuticals were introduced (one including mostly generic drugs and covered from health insurance and the other which required participation of the insured person).

2008: new reform measures are being proposed and implemented at the time when the first effects of financial and economic crisis are starting to appear. Reorganisation and financial stabilisation included the introduction of new sources of revenues, increase of efficiency through public procurement of medication, centralised procurement of medical equipment, better supervision of transfers to household), reorganisation of emergency medical services, informatisation of primary health care and introduction of national waiting lists. Diagnoses-related groups (DRGs or locally DTS<sup>38</sup>) replaced the unpopular PPTPs in 2009 and allowed for a more refined case-groupings.<sup>39</sup> The new Health Protection Act entered into force on 1 January 2009 and introduced the system of concessions for performance of public health services, which replace the previously existing (peculiar) system of rentals of premises under privileged conditions and private contracted physicians in primary health care. In 2012, the Act was amended to unify the conditions regarding the remaining rentals of premises by private physicians in health care centres in accordance with the market conditions.

2012: the adoption of a new National Health Development Strategy marks a new phase in the development of the health system. It tries to address the existing inefficiencies on the supply side (great number of health facilities which create deficit), shortages of professional management staff (heads of hospitals are usually physicians), inadequate financing of hospitals, inefficient organisation and financing of primary health care. The burden for public financing of the system is expected to continue the rising trend, given the increase of life expectancy and various health risks. Inequalities in the financing system are caused by preponderant share of compulsory health insurance and comparably low share of budget spend on financing of health care.

In 2013, new Compulsory Health Insurance Act entered into force. It was adopted mainly with a view of aligning the Croatian legislation with the Patients' Rights Directive.<sup>40</sup> The need for a completely new act was justified by the fact that the previously existing act was amended nearly ten times in the past, thus making the legal text practically illegible and increasing legal uncertainty, as well as the fact that the implementation of the Patients' Rights Directive required comprehensive reformulation of many existing provisions.

### 3.1.2 System characteristics

The system of health care in Croatia is based on mixed financing (with predominant public financing, nearly 85%<sup>41</sup>) and the combination of public and private health services. Health

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<sup>38</sup> Cro. dijagnostičko-terapijske skupine.

<sup>39</sup> Bogut, Marina; Vončina, Luka; Yeh, Ethan (2012) Impact of Hospital Provider Payment Reforms in Croatia, World Bank Policy Research Working Paper 5992.

<sup>40</sup> Directive 2011/24/EU of the European Parliament and of the Council of 9 March 2011 on the application of patients' rights in cross-border health care, OJ L 88 of 4 April 2011.

<sup>41</sup> The World Bank Group – Croatia Partnership, Country Program Snapshot, October 2013.

protection is mainly financed from mandatory contributions (approximately 91%<sup>42</sup>) as well as from taxes. Health spending is at 7.8% of GDP. Health protection is financed by the Croatian Institute for Health Insurance (HZZO), counties and the City of Zagreb and beneficiaries. As of 1 May 2012 rates of contributions have dropped from 15% to 13% for the basic health insurance. 0.5% contribution is paid as a special contribution in case of occupational injuries. Contributions are paid on the monthly contribution base, which represents the salary or other income from employment paid by employer and subject to income tax or income from self-employment, which is calculated as the product of monthly contribution base and a coefficient depending on the nature of self-employment. Health contribution on pensions above average net wage is paid in the amount of 3%. It is estimated that only 1/3 of the population is liable to pay health care contributions, while the remaining population includes pensioners (if the amount of pension is up to the average net wage, 1% health contribution is paid from the state budget), insured persons' family members, unemployed (health contribution 5% of the prescribed base amount, paid from the state budget) and other inactive persons. Average number of insured persons in 2012 was 4,356,486, out of which 1,471,662 were active insured persons.<sup>43</sup>

Hospitals are financed directly from the state budget (based on the contract concluded with the HZZO), while all other payments are effectuated through the HZZO. Clinical medical institutions receive during the year the maximum amounts to perform clinical and specialist-consiliary medical care and at the end of the year the work performed and the allocated means are harmonised. The treatment of acute patients is paid to clinical medical institutions according to diagnostic-therapeutic groups (DTS), or according to day of clinical (hospital) treatment (DBL) for chronic diseases. Additional coverage is provided for particularly expensive medicines and certain complicated procedures. In year 2012, 64 hospitals with 22,372 beds have been contracted, 15,940 of which are acute beds and 6,432 beds for chronic diseases, prolonged treatment and physical therapy.<sup>44</sup> Monthly hospital limit is approved by HZZO according to a formula which is not tied to the indicators of success. According to structure, the majority of hospital expenses cover employees' wages (56.67% in 2010, 57.38% in 2011).<sup>45</sup> 52,943,026 prescriptions have been issued, which is 12.15 prescriptions per insured person. The amount of co-payment for services in primary health care and for prescription medicines is currently HRK 10 (supplementary insurance covers this cost). Participation of insured persons is thus 20% of the full cost of the service, whereas 80% of the cost is covered by HZZO.<sup>46</sup>

Facilities involved in health care activities are either state- or county-owned, or private. Teaching hospitals, clinical hospital centres and state institutes of public health are state-owned. Health centres, polyclinics, general and special hospitals, pharmacies, institutions for emergency medical aid, home care institutions and county institutes of public health are county-owned. The number of community health centres has steadily decreased from 120 in 2002 (when the process of merging began) to 49 in 2012. Out of 76 hospital institutions and

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<sup>42</sup> Ibid. (FN 41).

<sup>43</sup> Croatian Institute for Health Insurance (2013), Izvješće o poslovanju HZZO-a za 2012. godinu (Business Report 2012).

<sup>44</sup> Ibid. (FN 43).

<sup>45</sup> Ostojić, Rajko (2012), Health care system condition, presentation at the round table organised by the Magazine Banka and the Institute of Economics Zagreb on 06.02.2012 in Zagreb. Retrieved at <http://www.bankamagazine.hr/Projekti/Analizazdravstvenogsustava.aspx> on 10 February 2012.

<sup>46</sup> The new Compulsory Health Insurance Act (Official Gazette of the Republic of Croatia *Narodne novine* no. 80/13) does not alter this ratio of co-participation, which was established under the previously applicable Compulsory Health Insurance Act 2008 (Official Gazette of the Republic of Croatia *Narodne novine* no. 150/08, 94/09, 153/09, 71/10, 139/10, 49/11, 22/12, 57/12, 90/12, 123/12 and 144/12).

sanatoriums, nine special hospitals and five sanatoriums were privately owned. By the end of 2012, there were 5,792 private practice units (doctors' offices, laboratories, private pharmacies, private physical therapy practices and home care services) registered. Out of 2,460 doctors' offices, 1,832 or 74% were in concession.<sup>47</sup>

In 2012, the Croatian Institute for Health Insurance contracted 2,343 teams of general/family medicine, 272 teams of children health protection, 272 teams of women health protection, 1,955 teams of dental protection, 155 teams of preventive medicine for school children and students, 134 teams of primary laboratory diagnostic, 871 teams of community nurses, 112 teams of hygienic-epidemiologic health protection, 41 team of mental health protection, prevention and drug rehabilitation, 30 teams in the activity of public health, 1,282 nurses for health care at home, 149 teams for occupational medicine. In addition to that, in the activity of emergency medicine, contracts with 20 newly formed county emergency institutes in accordance with the network of emergency medicine were concluded.<sup>48</sup>

The Croatian Institute for Health Insurance (HZZO) is a public institution whose main task is to implement compulsory health insurance in Croatia. 91.13% of the income in 2012 (around HRK 21 billion) was used for financing of health protection, remunerations and work of the Institute. The Institute is entitled to manage supplementary and additional health insurance (as sub-categories of voluntary insurance), in which segment it enters into competition with private insurance companies. So far, the Institute has only implemented supplementary health insurance scheme for the coverage of costs arising from the compulsory health insurance. The total number of insured persons in supplementary health insurance was 2,364,289. Costs of supplementary health insurance policy for 944,301 insured persons are covered from the state budget (these categories include persons with 100% disability, organ donors, blood donors above 35 (male) or 25 (female) blood donations, pupils and students, as well as persons below the prescribed income census).

By the end of 2012, Croatia's health care had a permanent work force of 74,241 (56,598 health professionals and associates, 5,173 administrative and 12,470 technical staff). Structure wise, the most permanently employed workers were of high school education (37.8%). Administrative-technical staff had a 23.8% share, physicians 17.3% share in the work force. Additional 7,149 health professionals and associates were temporarily employed in the same period.<sup>49</sup> In 2012, roughly 75% of permanently employed physicians worked in state health care facilities (primary job). Permanently employed medical doctors had a share of 61.0% women, and 70.6% specialists. By the end of 2012, there were 830 additional part-time physicians.<sup>50</sup>

The total rate of sick leave in 2012 was 3.11%, which is by 3.73% less than in the previous year (3.23%).<sup>51</sup> Average duration of sick leave at employer's expense (up to 42 working days) has also slightly decreased in comparison to 2011 (7.91 days), and was 7.83 days in 2012. However, average duration of sick leave at the expense of HZZO (above 42 days) increased, from 43.54 days in 2011 to 44.36 days in 2012. On average, 45,735 employees are absent from work due to sick leave every day, which is 3.11% of all active insured persons. 30% of daily sick leave are caused by complications during pregnancy. Women make majority in average daily count of persons on sick leave with 61.05%. In the total expenditures for compensations (including sick leave and disability, maternity leave, travel expenses etc.),

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<sup>47</sup> Croatian Public Health Institute (2013), *Croatian Health Service Yearbook 2012*.

<sup>48</sup> Croatian Institute for Health Insurance (2013), *op. cit.* (FN 43).

<sup>49</sup> Croatian Public Health Institute (2013), *op. cit.* (FN 47).

<sup>50</sup> *Ibid.* (FN 47).

<sup>51</sup> Croatian Institute for Health Insurance (2013), *op. cit.* (FN 43).

compensations for sick leave and disability make 42.22%, out of which 32.5% are compensations for sick leave due to complications during pregnancy. Decrease in the rate of sick leave is ascribed to the stricter supervision and guidelines on prescription of sick leave. The latest legislative amendments aim to further curtail the rate and duration of sick leave.

Insured persons are entitled to claim reimbursement of travel expenses if they used health protection at a contracted health facility or physician which is more than 50 km distant from their residence, provided they are not able to obtain the same treatment in the place of their residence. However, complicated rules of reimbursement do not allow for a full reimbursement of costs in all cases, which may cause inequalities in practice.<sup>52</sup> In 2012, travel expenses amounted to HRK 203.2 million. This does not include emergency transport.

In 2012, there were 41.8 million visits to primary health care facilities, the majority of which was to the general/family physician, which is more than seven visits per each insured person. Primary health care is paid according to the capitation principle and according to the diagnostic-therapeutical groups (DTS) for part of the services provided, which is invoiced separately to the HZZO. The number of visits to specialist was 44.5 million in 2012 (4 million more than in the preceding year), meaning that the number of referrals to specialists still exceeds the number of primary care visits and the system throughput ratio decreases at the side of primary health care for many years now.

In 2012, HZZO covered part of the outstanding debt of hospitals to pharmacies for medication and other medical materials in the amount of HRK 465.4 million. This was an *ad hoc* measure to alleviate the existing shortages of medication and pay long overdue obligations to suppliers.

### 3.1.3 Details on recent reforms

In 2013, the new Compulsory Health Insurance Act entered into force. It does not bring about profound changes. However, immediately after it entered into force, it will require further amendments. Namely, due to reformulation of the circle of insured persons, full-time students older than 26 years of age have lost the right to compulsory health care, and have to pay the compulsory insurance premium themselves (approximately HRK 400 per month, which is a significant strain in the student budget). The paradox is that they have no other possibility to base their compulsory insurance on, e.g. employment or unemployment, since in that case they lose the status of full-time students. The Ministry of Science, Education and Sport has requested amendment of this provision, so that all full-time students will be insured for eight years since the beginning of the study, but no amendments have been prepared yet.

The new model of financing in primary health care was initiated in April 2013, with the aim of stimulating the work of doctors. Through implementation of a novel IT-solution, doctors register every procedure by “one click of a mouse”, which allows them to earn extra profit if they are efficient and provide high quality service (the so-called “five stars service” includes the provision of phone consultations, scheduled appointments, e-ordering, consultations, other e-health services<sup>53</sup>). The HZZO projections show that implementation of the new contracts will result in an average income between HRK 477,000 to 506,000 per year per practice. The intention is to increase financing of primary health care by 5% per year until 2015, given that

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<sup>52</sup> For example, if a person is older than 65 and has a possibility of subsidised or free public transport for only part of the trip (e.g. subsidised bus tickets on islands), the costs for that part of the trip are not reimbursed if a person chooses to travel by personal vehicle, not even proportionally to the subsidised ticket.

<sup>53</sup> Based on these conditions, one out of two physicians – concessionaires was given a rating of five stars; data from May 2013, newspaper article, Novi list 25 May 2013.

the ratio of financing of specialist care and hospitals in relation to primary health care is currently at 1:4 (in favour of specialist care), which is double than 20 years ago.<sup>54</sup>

In September 2013, the new model of referrals to specialist examinations and hospital treatment was put in action. The aim is to reduce waiting lists and expenses. Establishing a diagnoses, treatment and follow-up of chronic patients is transferred to primary health care physicians. Pre-operative diagnostic will be conducted in community health care centres, not hospitals. Only primary health care physicians will be able to prescribe sick-leave, whereas hospital doctors may only recommend it or recommend therapy. Generic drugs will be preferred over other medication, which is aimed at rationalising the expenses for medication.

The Act on Sanation of Public Institutions<sup>55</sup> was adopted in 2012, mainly with a view of sanation of heavily indebted county-owned hospitals. It enables temporary centralisation of the hospital system, whereby county-owned hospitals transfer management rights to the Ministry of Health during sanation and two years following the closure of this procedure. Sanation is financed from the state budget. Total outstanding debt of health care facilities on 31 July 2012 amounted to HRK 4.9 billion. Outstanding debt of county-owned general hospitals was HRK 1.7 billion, whereas state-owned clinical hospitals, clinical hospital centres and clinics were indebted for HRK 2.9 billion. The majority of all debt concerns pharmaceuticals and medical equipment. In the last 15 years, there were 12 ad hoc sanations within the health system. In April 2013, the Government adopted decisions on sanation of 9 state-owned clinical hospitals at a cost of HRK 1.9 billion and additional 25 health care facilities, mostly county-owned hospitals, at cost of HRK 1.13 billion.

### 3.2 Assessment of strengths and weaknesses

The definition of services within the basic, compulsory health insurance package is constantly being put off. Curtailing and defining the basic package of services is an inevitable measure to ensure savings in this segment.

In September 2013, the unions representing doctors in hospitals have entered into a strike, which is still on-going at the time of conclusion of this report. The aim is to force the Government to sign a new collective agreement, with similar material rights which were recognised in the previous collective agreement signed in 2011 and annulled in June 2013 by the County Court in Zagreb, due to faults in the procedure of its conclusion (it was signed by the technical government in the transitional period after the elections, before the new government took office). Under that agreement, the calculation of supplements to salaries for on-call duty and readiness was that each such hour costed 50% more than the regular working time hour, which meant an additional cost of HRK 840 million for the system per year. All negotiations between the Ministry of Health and the unions have so far failed. In the meanwhile, the specialist appointments are delayed and waiting lists will certainly grow.

Operation and financing of hospitals constantly generates debts for the entire health system. The State Audit Office noticed efficiency losses in many areas of hospital operation.<sup>56</sup> Preponderant share of expenses for employees is not surprising, given that there are usually more employees than envisaged in the systematisation of workplaces, the system of

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<sup>54</sup> Head of HZZO Dr. Siniša Varga at the presentation of the new model, reported by Novi list 6 February 2013.

<sup>55</sup> Act on Sanation of Public Institutions, Official Gazette of the Republic of Croatia *Narodne novine* no. 136/2012.

<sup>56</sup> State Audit Office (2013) Report on financial audit of hospital health care facilities for 2011, retrieved at <http://www.revizija.hr/hr/izvjesce/izvjesce-o-obavljenoj-financijskoj-reviziji-bolnickih-zdravstvenih-ustanova-za-2011/> on 10 October 2013.

calculation of salaries is intrasparent and complicated, the calculation of wages regarding on-call duty or preparedness, as well as coefficients of complexity of workplaces is often incorrect. In addition, there are problems with records and expenses for medication, which comprise about 63% of all material expenses. Records on medication on stock are not updated, which often results in inefficient management and supply of pharmaceuticals. Some hospitals do earn their own income, mostly from clinical testing of drugs, but the policies on distribution of that income are not unified and some of the hospitals keep only five, whereas some keep 40% of such income. There is no integrated methodology of keeping records on claims, the majority of which is towards HZZO (HRK 2.8 billion) based on contracts for compulsory and supplementary health protection outside of agreed limits. Some hospitals have taken commercial loans for refinancing of current obligations, sometimes even without the consent of their founders. The chain of outstanding debt toward suppliers starts with the state, who in turn breaks this circle by covering obligations towards suppliers in periodical intervals.

Out of the total budget for health of HRK 21 billion, HRK 11 billion or 3.3% of GDP is spent on the operation of hospitals. The majority of those expenses, as already highlighted, is spent on employees. 90% of the hospital budget depends on the HZZO. Dr. Maja Vehovec (Economic Institute Zagreb) warns that the problem lies in the model of financing based on monthly hospital limits set by HZZO. Since limit categories and its setting are not transparent, hospitals are bound to realise an inherent loss. They cannot know in advance how many patients and with what diagnoses to expect, but they have to keep on sending the bills for services provided to the HZZO, even though they will be financially covered only up to the limit set by the HZZO. As a result, hospitals try to improve their financial status and increase limits by charging more and more services; whereas the HZZO decreases limits on assumption that this is exactly what the hospitals did.<sup>57</sup> Production of loss is therefore inevitable. Another objection concerns the fact that physicians in hospitals are still inadequately applying the system of charging of services per diagnostic-therapeutic groups (DTS), which results in increased cost, even though the system has been implemented for several years now.<sup>58</sup>

The Croatian Institute for Health Insurance (HZZO) is an extra-budgetary beneficiary of the state budget, meaning that it is financed by specific contributions, taxes and other prescribed income, but its expenditure is nevertheless represented as part of the state budget (and consequently, its losses are covered from the budget and additional loans). Only the administration of supplementary health insurance is separated and represented in the financial reports of the HZZO as revenue from insured persons according to special provisions and as expenditure – payments to health care facilities. Loss in supplementary health insurance in 2012 is HRK 177.6 million.<sup>59</sup> Nevertheless, the HZZO reduced the price of supplementary policy to HRK 70 for all insured persons (previously HRK 50 – 80 for pensioners, HRK 80 – 130 for other insured persons) in September 2013. With this measure, HZZO hopes to retain the majority of 2,370,000 insured persons and beat the competitors in the market. The largest private insurer Croatia osiguranje offers their supplementary policies at a price of HRK 75, and with the opening of the market after Croatian accession to the EU, additional private insurance companies have announced their interest in this segment. HZZO is currently holding around 98% of the market in supplementary insurance, but according to other insurers, it has a privileged position because it does not need to have a special company selling those policies and it does not come under the supervision of the Croatian Financial

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<sup>57</sup> <http://www.banka.hr/hrvatska/financijska-dijagnoza-hrvatskih-bolnica>, retrieved on 15 November 2012.

<sup>58</sup> <http://www.banka.hr/ministar-ostojic-nisu-ekonomistica-vehovec-jesu/print>, retrieved on 15 November 2012.

<sup>59</sup> Croatian Institute for Health Insurance (2013), op. cit. (FN 43).

Services Supervisory Agency (HANFA) as other insurers do. It does not have to follow other strict rules (i.e. regarding technical reserves, share capital, mandatory audit, solvency rules, etc.) applying to other insurers as well. Since amendments to the Voluntary Health Insurance Act in 2010,<sup>60</sup> HZZO was given the possibility to administer additional health insurance (as one of the forms of voluntary insurance covering higher standard of medical services, i.e. one-bedded rooms in hospitals, etc.), but it has still not entered this market.

Private voluntary insurance is still a luxury for Croatian citizens, since only about 1.19% of citizens has a private health insurance policy.<sup>61</sup>

To rationalise costs for drugs, the HZZO has already introduced risk-sharing, pay-back and cross-product agreements with pharmaceutical companies. In addition, according to the new model, where a generic and original medicine is available, generic drugs will be always be preferred, unless there are specific medical indications to the contrary.

### 3.2.1 Coverage and access to services

According to the World Bank estimates, with 1.8 hospitals and 549 hospital beds per 100,000 inhabitants, Croatia is in line with most older EU Member States and does not have excess hospital facilities like many other countries in Central and Eastern Europe.<sup>62</sup> Prof. Dr. Maja Vehovec (Economic Institute Zagreb) warns, however, that Croatian hospitals have inadequate medical technology and equipment. Comparing the number of MRI scans, mammograms and CT scans per 100,000 inhabitants reveals that Croatia is below all EU countries, except Romania.<sup>63</sup> In addition, regional coverage varies and regional differences persevere, since many capacities are unequally distributed and concentrated in metropolitan areas. Even though supplementary insurance system run by HZZO is in deficit, HZZO decided to reduce the price of policy in September 2013 to HRK 70 for all categories of insured persons. There is a risks that this measure could even widen the deficit in the future.

According to the Strategic Plan of the Ministry of Health 2014 – 2016,<sup>64</sup> within the designated target of making healthcare more accessible, implementation of several measures is envisaged: reorganisation and improvement of emergency medical services, completion of public healthcare network, development and standardisation of infrastructure and investment in human resources, informatisation, improvement of telemedicine.

### 3.2.2 Quality and performance indicators

Health system reforms have significantly improved health outcomes in the past 20 years. Between 1990 and 2010, life expectancy at birth increased from 72.5 to 76.6 years, infant mortality was reduced from 10.7 infant deaths per 1,000 live births to 4.4 and the age-standardised mortality rate decreased by 20%.<sup>65</sup>

The value of corruption in health care is estimated at HRK 3 billion.<sup>66</sup> Around 9,000 physicians are estimated to be on the payroll of pharmaceutical companies.

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<sup>60</sup> Act on Amendments to the Voluntary Health Insurance Act, Official Gazette of the Republic of Croatia *Narodne novine* no. 71/10.

<sup>61</sup> <http://www.banka.hr/zdravstveno-osiguranje-hrvatima-jos-uvijek-luksuz/>, retrieved on 15 November 2012.

<sup>62</sup> The World Bank (2012), Croatia Policy Notes: A Strategy for Smart, Sustainable and Inclusive Growth, Report No. 66673-HR.

<sup>63</sup> Prof. Dr. Maja Vehovec, *Jutarnji list* 4 April 2013.

<sup>64</sup> Ministry of Health, Strategic Plan of the Ministry of Health 2014 – 2016, retrieved at [http://www.zdravlje.hr/programi\\_i\\_projekti/nacionalne\\_strategije](http://www.zdravlje.hr/programi_i_projekti/nacionalne_strategije) on 30 October 2013.

<sup>65</sup> The World Bank (2012), op. cit. (FN 62).

<sup>66</sup> Društvo forenzika Prima, Corruption in Health Care, Press release, retrieved at <http://www.forenzika-prima.hr/korupcija-u-zdravstvu.php> on 13 October 2013.

The measures aimed at reducing waiting times include the central ordering system, more efficient use of resources, contracts with private facilities for certain diagnostic procedures and the new model of referral to specialist examination which entered into force in September 2013. Average number of waiting days for all diagnostic procedures was 156 with 18,256 orders waiting, average number of days for therapeutic procedures was 256 with 22,888 orders, and average number of days for first examination was 106 with 106,875 orders.<sup>67</sup> Strike of doctors in hospitals will certainly have an impact on the waiting lists, because only the most urgent procedures are being conducted and many other procedures and examinations are either delayed and rescheduled. The Minister of Health estimates that the lists have increased by 15% since the beginning of the strike, but an exact estimate will be possible only after the strike ends.<sup>68</sup>

### 3.2.3 Sustainability

Health care expenditure in 2009 stood at 7.8% of GDP (OECD average 9.6%)<sup>69</sup> and it is among the highest of all new Member States. Total health expenditure per capita was USD 1,552 in 2009.<sup>70</sup> Public sector health expenditure, as total of health expenditure in 2009 was estimated at 84.88% (OECD average 72%); whereas public sector health expenditure as % of total government expenditures was 17.58% in 2009 (OECD average 22%). Private households' out-of-pocket payments in 2009 amounted to 14.52% of total health expenditure.

There is a continuing problem with debt in the health sector, which was estimated at 1% of GDP at the end of 2010.<sup>71</sup> Whether this is due to generous health benefits or the problems with implementing fiscal discipline in the sector, or the combination of both, is hard to say. In 2013, HRK 3.3 billion of the health sector debt was covered from the state budget, which is already under great pressure. The budget deficit in the first eight months of 2013 amounted to HRK 13 billion, which exceeds the projections for the entire year by almost HRK 3 billion. Due to increase of expenditures for coverage of debt in health care, deficit of the general state in 2013 will continue to rise and public debt is likely to reach 60% of GDP by the end of the year.<sup>72</sup>

In 2013, the State Audit Office published a report on the financial audit of 30 hospitals (seven state-owned clinical hospitals, one clinical hospital owned by the City of Zagreb and 22 county-owned hospitals).<sup>73</sup> All of the audited hospitals have a weak financial position, with total deficit of HRK 385 million. 54.6% of all expenditure is used to cover the expenditure for employed persons, which is a rise of 5.6% in comparison with the previous year. This expenditure varies among hospitals, from 42.4% to 70.0%. Material expenditures, the majority of which concerns pharmaceuticals and medical equipment, represented a share of 39.4% in total expenditure. Expenditure for pharmaceuticals and medical equipment have risen by 16.9% and 10.4% respectively in comparison with the previous year.

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<sup>67</sup> Waiting list: institutions, updated 14 October 2013, retrieved at [http://www.hzzo.hr/dload/eListe/Broj\\_pacijenata\\_na\\_listi\\_cekivanja\\_po\\_ustanovama.html](http://www.hzzo.hr/dload/eListe/Broj_pacijenata_na_listi_cekivanja_po_ustanovama.html) on 16 October 2013.

<sup>68</sup> <http://dnevnik.hr/vijesti/hrvatska/nakon-20-dana-strajka-lijecnika-liste-cekivanja-u-bolnicama-sve-su-duze---306320.html>, retrieved on 13 October 2013.

<sup>69</sup> Mihaljek, Dubravko (2012), Financing Health in Times of Crisis, presentation at the round table organised by the Magazine Banka and the Institute of Economics Zagreb on 06.02.2012 in Zagreb. Retrieved on 10.02.2012 at <http://www.bankamagazine.hr/Projekti/Analizazdravstvenogsustava.aspx>.

<sup>70</sup> WHO estimates, European Health for All database (HFA-DB).

<sup>71</sup> The World Bank (2012), op. cit. (FN 62).

<sup>72</sup> Croatian National Bank, Note on Economic Developments, October 2013, retrieved at [http://www.hnb.hr/publikac/bilten/informacija/savjet/hinformacija\\_savjet\\_10\\_2013.pdf](http://www.hnb.hr/publikac/bilten/informacija/savjet/hinformacija_savjet_10_2013.pdf) on 14 October 2013.

<sup>73</sup> State Audit Office (2013), op. cit. (FN 56).

Decrease of the rate of contribution for health care by 2 pp (from 15% to 13%) in 2012 was aimed to decrease the cost of labour and encourage economic competitiveness. However, the estimated effect of this measure is that there is HRK 2.4 billion less in revenues per year, which the already over-indebted health system needs to replace somehow. According to the latest information, an increase of out-of-pocket payment for services in primary health care and hospital treatment are under consideration, but the details or the percentage of increase are not published yet.<sup>74</sup> Currently, out-of-pocket payments are estimated at HRK 3.5-4 billion per year.<sup>75</sup>

### **3.2.4 Summary**

Minimising debt and decreasing public health spending, but further improving health outcomes is a challenging task. With the population ageing and new and costly health technologies, focusing on prevention will yield positive results, but only in the long run. Removing existing inefficiencies in hospital management is required in the short run in order to decrease the debt of the hospitals. Reconsidering the model of financing of hospitals seems inevitable in the long run.

### **3.3 Reform debates**

As in the previous period, World Bank is among the most active participant in the reform debates. World Bank analysts propose focusing on the following priorities in the medium-term:

- Upgrading and rationalising service delivery model, which includes rationalising hospitals, setting quality standards, providing accessible secondary and tertiary care, defining health networks and two-way referral systems, developing ambulatory diagnostic and treatment services.
- Reinforcing the Health Technology Assessment (HTA) and rationalising of spending on pharmaceuticals.
- Adjusting the hospital services payment system (diagnoses-related groups or DTS) which has so far produced mixed results and is mainly used to justify the limits set by HZZO.
- Improving the emergency medical services. Institutes for emergency medical services have been set up at national and county levels as part of the restructuring efforts, to ensure efficient spending and optimal outcomes. Emergency medical specialisation was established. Further efforts are needed to continue training technicians, to complete activation of the county institutes, as well as to implement telemedicine.

In the short term, the World Bank analysts propose concentrating on the review of health facility networks, formulate one or more hospital restructuring models and improve high-volume, low-cost specialised diagnostic and treatment ambulatory services; support the HZZO in assessing health technology and rationalising spending on drugs, align protocols and the basic package with DTS payment categories, continue the reform of emergency medical services.

The Medical Chamber of Croatia criticises HZZO for not involving its representatives as active participants in debates and the process of preparation of new acts and by-laws, as they

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<sup>74</sup> Newspaper article, Jutarnji lit 4 September 2013.

<sup>75</sup> <http://www.banka.hr/gradjani-iz-dzepa-za-zdravstvo-izdvajaju-cetiri-mlrd-kuna>, retrieved on 15 November 2012.

have first-hand knowledge of the problems arising in practice and implementation of those rules. The new model of referral to specialist examination and realisation of other rights of patients is criticised for placing a heavy burden on primary care physicians, as well as the obligation to prescribe generic drugs, even though it could have heavier side-effects and even though the price difference in comparison to the original drug might be only several HRK. The Chamber also warns that upon accession of Croatia to the EU, around 100 doctors have already requested certificates of diploma compliance in order to work abroad in one of the EU Member States. This outflow is worrying, since Croatia already has shortages of medical professionals.

Hospital health care master plan is currently in preparation. The Government hired independent counsel from France to do this work, but no details of their propositions have been made public as yet.

## **4 Long-term care**

### **4.1 System description**

#### **4.1.1 Major reforms that shaped the current system**

Up until 1990, Croatia, like many socialist countries, had no long-term care policy. Care for the elderly and the frail fell upon their families, or as a last resort, institutions (hospitals, nursing homes, etc.). Major overhaul of the social protection system after 1990s and the subsequent reforms of health and social welfare system did not pay too much attention to creating an integrated approach to long-term care. As a result, there is no comprehensive long-term care strategy and each partial reform of either health or social welfare system concerned fragments of long-term care, without real preparation in advance for the impact of such reforms and without taking into account the relevant parameters needed for steering such policy.

#### **4.1.2 System characteristics**

LTC in Croatia is mainly PAYG financed (from contributions in health care system and from taxes within the social welfare system) and dispersed between the health system and the social welfare system.

Long-term care in Croatia is organised within the system of social welfare, at the national as well as the regional level. Health protection for the elderly and infirm is provided through the health care system.<sup>76</sup>

Long-term care is organised on the principle of social assistance and financed mainly from the state budget (96%), while the remainder comes from beneficiaries' participation in payment of costs of care outside one's own family. Local and regional self-governing units participate in the financing of the system and organisation of social welfare services within the scope of their competences.

The scale of family care in Croatia is above the EU27 average. Around 17% of the respondents aged 35-49 report having to care for elderly relatives at least several times a week.<sup>77</sup> The age cohort 50-64 apparently bears the greatest load when it comes to taking care

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<sup>76</sup> I.e. the right to health visitor, the right to sanitary transportation, to right to home health care.

<sup>77</sup> EU-27 average is 15% for women and 7% of men. Interestingly, there are no gender differences in that age cohort in Croatia, whereas in the age cohort 50-64 the gender gap is significant: 24% of women as opposed to

of elderly: 24% female respondents and 13% male respondents of that age group are involved in those activities, which places Croatia among the top three countries in Europe (after Italy and Estonia).<sup>78</sup>

Long-term care is covered by health insurance through hospital facilities (e.g. psychiatric or geriatric departments in hospitals). If a person is placed in a social welfare institution or nursing home, health care is provided based on the contract with health teams in those institutions or with local health centres. It is admitted even in the National Health Development Strategy 2012-2020 that there are no reliable data on expenditures for long-term care including health care for elderly. Based on the number of days in hospital treatment and expenditure for health care of elderly at home, a ballpark figure is that this expenditure in 2011 amounted to 0.1% of GDP, but this should be taken with caution.<sup>79</sup>

#### 4.1.3 Details on recent reforms in the past 2-3 years

The following rights for the elderly and frail persons are guaranteed under the Social Welfare Act<sup>80</sup>, which was enacted in 2012: supplement for assistance and care, assistance and care at home, daily stay, accommodation in institution. In addition to these rights, the Ministry of Social Policy and Youth has continued to finance two broad programmes for elderly from the previous years, which are directed at providing non-institutional forms of care: “In-home assistance to elderly” and “Day-care services and in-home assistance to elderly”. Beneficiaries are persons over 65 years of age and the programmes are primarily aimed at those who live in single households or whose family members are not able to provide adequate care, persons without sufficient means of livelihood, persons with diminished functional capabilities and poor health, as well as persons who are not using other rights and services from other systems. Services are provided through 91 local and regional self-government units who have contracted these services with the Ministry. Currently about 160 local communities implement these programmes, with 15,550 elderly beneficiaries. 1,045 persons are employed through the programmes. The financing of the programmes continues, despite the fact that no strategy is adopted in this connection.

In 2011, amendments to the Health Protection Act<sup>81</sup> enabled the performance of palliative care at secondary level and establishment of departments for palliative care within hospitals. There are currently 142 contracted hospital palliative beds, as presented in the Strategic Plan of Palliative Care 2014 – 2016, which was prepared by the Ministry of Health in July 2013. The Plan envisages the opening of five regional centres for palliative care in the next four years. The Plan is based on estimates that only few hundred out of over 50,000 persons who die each year receive palliative care. The needs exceed capacities, since it is estimated that a minimum of 20% of tumor patients and 5% of non-oncological patients need palliative care in the last year of their life. According to the Plan, the goal is to have at least 175 palliative beds per clinical hospital and 85 beds per special hospital by 2016, while the remaining 85 beds

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13% of men take care of elderly relatives. European Foundation for the Improvement of Living and Working Conditions (2010), Second European Quality of Life Survey: Family Life and Work, retrieved on 05.03.2012 at <http://www.eurofound.europa.eu/pubdocs/2010/02/en/1/EF1002EN.pdf>, 23.

<sup>78</sup> Loc.cit.

<sup>79</sup> National Health Development Strategy 2012-2020, op. cit. (FN 37).

<sup>80</sup> Social Welfare Act, Official Gazette of the Republic of Croatia, *Narodne novine* no. 33/12.

<sup>81</sup> Act on Amendments to the Health Protection Act, Official Gazette of the Republic of Croatia, *Narodne novine* no. 84/11.

would be allocated in children and psychiatric wards, health facilities at primary level, prison hospitals, etc.<sup>82</sup>

## 4.2 Assessment of strengths and weaknesses

### 4.2.1 Coverage and access to services

The persevering problem of long-term care in Croatia is that it is dispersed between health and social welfare system, which has a negative impact on accessibility, recognisability and adequacy of the provided services. According to the World Bank, long-term care for many elderly people is provided at high cost and with long waiting lists by hospitals and other facilities within the health system, even when social services would better satisfy the needs of such persons than medical services.<sup>83</sup>

There is a considerable coverage gap regarding the estimated number of dependent people (around 300,000) and those who have actually received some type of care (estimated around 50,000 people in the past<sup>84</sup>) and shortages of formal services in institutionalised context. There are long waiting lists for county nursing homes, whereas private providers are financially unaffordable to many. Lack of informal care will likely increase the demand for institutionalised types of care. Whereas the number of beneficiaries of institutional care increased between 2003 and 2009 by 19%, the number of institutions (mostly private) increased by 27%.<sup>85</sup>

According to available data for 2011, there were 23% beneficiaries of social welfare services in the 66 – 80 age group and 8% in the 80 years and over age group among the total number of adult beneficiaries of welfare services (18+).<sup>86</sup> Among persons without sufficient means of livelihood (23.2% of the total number of adult beneficiaries), the share of elderly and infirm was 47%, while the share of seriously ill was 52%. According to the data from the Ministry of Social Policy and Youth, in 2012 there were 45 county-owned nursing homes for elderly and frail with 10,574 beneficiaries, 84 nursing homes established by other founders (private, local municipalities, etc.) with 4,550 beneficiaries<sup>87</sup> and two state-owned nursing homes with 167 beneficiaries. In addition, there are numerous so-called family homes for elderly and frail persons (no estimates regarding the number of beneficiaries are available) and 18 state-owned homes for mentally ill adults with just over 3,000 beneficiaries. Although support for non-institutional types of care is proclaimed as one of the overarching objectives of policies for elderly and frail persons, the pressure on institutional forms of care for elderly remains constant. According to the available data from 2010, the largest share of beneficiaries of institutional care was in the age group of 80+ (44.3% of all recipients), out of which 77.8% were women. Given the multitude of social entitlements and a non-unified census on which these entitlements are granted, it is extremely difficult to provide exact data regarding the

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<sup>82</sup> Ministry of Health, retrieved at [http://www.zdravlje.hr/novosti/novosti/ministar\\_ostojic\\_predstavio\\_strateski\\_plan\\_razvoja\\_palijativne\\_skrbi\\_2014\\_2016](http://www.zdravlje.hr/novosti/novosti/ministar_ostojic_predstavio_strateski_plan_razvoja_palijativne_skrbi_2014_2016) on 30 October 2013.

<sup>83</sup> The World Bank (2012), op. cit. (FN 62).

<sup>84</sup> In 2009, 23,400 adults and elderly were taken care in LTC institutions (public and private homes for the elderly, disabled, mentally ill); additional 15,200 received home-based or day care services in 2010; 3,100 received foster care; 2,400 received care at home; there are 6,000 hospital beds for chronically ill. The World Bank (2012), op. cit. (FN 62).

<sup>85</sup> The World Bank (2012), op. cit. (FN 62).

<sup>86</sup> Croatian Bureau of Statistics, Beneficiaries and services of social care 2011, First Release No. 8.4.1., 9 July 2012.

<sup>87</sup> The address book of nursing homes by other founders on the web-site of the Ministry of Social Policy and Youth counts 118 nursing homes.

number of beneficiaries and rights accorded to elderly and frail within the social welfare system. According to data retrieved from the Ministry of Social Policy and Youth,<sup>88</sup> beneficiaries of services, including institutional services in 2012 include 1,191 persons who received aid and care at home, 319 elderly and frail persons and 356 mentally ill adults who received the services of day-care in a social welfare home, 4,165 elderly and frail and 4,117 mentally ill adults in residential nursing homes, 822 adults and elderly persons in family homes and 3,549 adults and elderly in foster care. However, these figures refer only to beneficiaries for whom the state covered the entire cost of the service.

The role of the civil sector's associations in the long-term care arrangements is mostly concentrated on the promotion of active ageing, healthy living and overall social inclusion of disabled persons and elderly. There are various pensioner's associations organised at national, regional and local levels. For example, one of the oldest civil society organisations in Croatia is the National Pensioners' Convention of Croatia (*Cro. Matica umirovljenika Hrvatske*) with around 270,000 members, 300 associations and 800 branches and clubs at the local level. The association and its members, organise the purchase of winter foodstuffs, meat, fruits and vegetables, as well as heating fuel at preferential prices with payment by installments, while its volunteers visit the sick and infirm, and socialise in clubs, branches and associations.

#### 4.2.2 Quality and performance indicators

Medical services are currently often LTC services in disguise. About one-third of all hospital patients are over 65. With the rising number of private providers of LTC services, the accent in the coming years will have to be on the implementation and supervision of the implementation of quality standards for social services.

Some estimates show that around 80,000 persons are suffering from Alzheimer's disease in Croatia.<sup>89</sup> However, due to lack of reliable data, it is hard to estimate the availability of the services aimed at this particular category.

#### 4.2.3 Sustainability

It is impossible to estimate exactly how much public funding is spent on long-term care policies, since they are dispersed between the health care system and the social welfare system. In the health care part, it is estimated that around 0.1% of GDP was spent in 2011 on hospital treatment and health care of elderly at home.<sup>90</sup> The total share of social welfare expenditure in 2012 was 0.94% of GDP, of the majority (0.6%) concerns compensations and welfare assistance.<sup>91</sup> Around 95% of those expenses are financed from the state budget, with the remaining covered from participation by the insured persons. Local and regional expenditure for the entire social welfare component in 2012 amounted to HRK 2.5 billion.

World Bank analysts warn that the demographic transition will result in much heavier public spending on long-term care for three reasons: (i) public spending per LTC beneficiary is likely to rise with income levels and standards of living, but given the fact that Croatia

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<sup>88</sup> Ministry of Social Policy and Youth (2013), Annual statistical report on rights in social welfare, legal protection of children, youth, marriage and persons devoid of capacity to exercise rights and on protection of bodily or mentally injured persons in Croatia in 2012, retrieved at [http://www.mspm.hr/djelokrug\\_aktivnosti/javna\\_rasprava/javna\\_rasprava\\_o\\_nacrtu\\_prijedloga\\_zakona\\_o\\_so\\_cijalnoj\\_skrbi\\_i\\_prijedlog\\_iskaza\\_o\\_procjeni\\_ucinaka\\_propisa](http://www.mspm.hr/djelokrug_aktivnosti/javna_rasprava/javna_rasprava_o_nacrtu_prijedloga_zakona_o_so_cijalnoj_skrbi_i_prijedlog_iskaza_o_procjeni_ucinaka_propisa) on 13 October 2013.

<sup>89</sup> Croatian Association for Alzheimer's Disease, retrieved at <http://www.alzheimer.hr/ucionica/to-je-to-alzheimerova-bolest/> on 30 October 2013.

<sup>90</sup> National Health Development Strategy 2012-2020, op. cit. (FN 37).

<sup>91</sup> Ministry of Social Policy and Youth (2013), op. cit. (FN 88).

currently lags in the quality of LTC services, expenditures per LTC beneficiary are likely to increase faster than income per capita; (ii) currently, relatively few of the dependent population actually demand formal LTC services or receive publicly funded in-kind benefits and that number is likely to rise in the future; (iii) the dependent population is expanding.<sup>92</sup>

As a result of the fact that LTC is PAYG –financed, the system will become increasingly unsustainable in the future.

Life expectancy at birth is on the rise since 1950s, and was 79.9 years for women and 73.5 for men in 2010.<sup>93</sup> In the last decade, the life expectancy at 65 increased for 1.4 years for women and 1.3 years for men. Over the last 50 years (1960 – 2010) life expectancy at 65 increased for 2.6 years for men (0.5 years on average per decade) and for 4.5 years for women (0.9 years per decade).<sup>94</sup> On average, life expectancy at 65 stands at 14.6 years for women and 18.2 years for men, but there are significant regional disparities.

Statistical data on healthy life expectancy is not possible to track over longer decades, since its monitoring started only recently. According to the Survey of Health and Living Conditions (EU-SILC) from 2010, as reported in the National Health Development Strategy 2012-2020, healthy life expectancy at birth is lower than EU-27 average, and was 57.4 for men (61.7 in EU-27) and 60.6 for women (62.6 in EU-27). Same calculations show that men may expect to bring 78.1% (79.9% EU-27) and women 75.8% (75% EU-27) of their lifetime in good health. Healthy life expectancy at 65 is relatively low (6.4 years for both genders, compared to 8.7 years for men and 8.8. years for women in EU-27).

The share of persons with chronic illnesses or long-term health problems in Croatia is high, with 38% of the total population (31.4% EU27 average).

Self-perceived health is very low and progresses with age: only 46.4% of the population rates personal health status as good or very good (68% EU-27 average).

In 2011, 17.7% of population was 65+, and this ageing trend is expected to continue. In addition, ageing of the elderly part of population is expected: by 2020, more than 5% of the entire population will be older than 80 years and by 2050 one out of ten inhabitants will be older than 80. Old-age dependency coefficient (ratio of population 65+ in relation to the active population 15-64) was in 2011 at 25.4.

44% of all hospitalisations in 2010 concerned persons older than 60 years (around 30% 65+), whereby their hospital expenses amounted to HRK 3.2 billion or 39.5% of all hospital expenses. The share of hospitalisations of elderly 60+ and 65+ is on the rise. According to the projections of the Ministry of Health, the share of hospitalisations of elderly persons (60+) will rise by 14% by 2020 (taking into account projections regarding the number of inhabitants, which is expected to fall by 3% in the same period).<sup>95</sup> This will reflect on the cost of health protection as well.

In 2012, around 38% of total number of disabled persons was 65+. 28.8% was entitled to rights from the system of social welfare, 67.3% lived with their families, 29% lived alone, 3% lived in institutions and 0.7% had other independent living arrangements.<sup>96</sup>

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<sup>92</sup> World Bank (2012), op. cit. (FN 62).

<sup>93</sup> National Health Development Strategy 2012-2020, op. cit. (FN 37).

<sup>94</sup> Loc. cit.

<sup>95</sup> Loc. cit.

<sup>96</sup> Croatian Institute for Public Health (2013), Report on persons with disability in the Republic of Croatia, retrieved at <http://www.hzjz.hr/publikacije/invalidi12.pdf> on 10 October 2013.

#### **4.2.4 Summary**

Population ageing is one of the most profound trends in the Croatian society, which has a significant impact on the formulation of all social protection policies, especially health and long-term care policies. Since 2001, the population cohort of 65+ has grown larger than the population under 15 years of age.<sup>97</sup>

Of all social protection issues, long-term care organisation in Croatia receives the least public attention. There is no integrated approach to LTC issues. The care for elderly and other persons in need of assistance for daily living is fragmented and perceived either as a health care or as a social welfare problem. Long-term care services have to be organised at local and regional levels. Therefore, to attain the OMC objective of ensuring adequate access to long-term-care, it is important that the planning of the coherent policy at national level follows a bottom-up approach, i.e. the inclusion of local communities in all stages of decision-making is indispensable. The risk that 'poorer' municipalities will not be able to provide such services to their citizens has to be offset by appropriate measures at regional and central level.

#### **4.3 Reform debates**

The World Bank analysts point to several directions when it comes to the LTC policy reform. On the supply side, LTC needs to shift from medical to social care services; social services must shift from institutionalised to community-based care (e.g. assisted living, day care, home-based care); LTC sector needs to be reorganised to move from care fragmentation to care coordination. Since public sector will not be able to provide the increasing care in the future, a shift to private sector is expected; shifting from in-kind to cash benefits and vouchers is an option to support informal care and subsidise demand for services provided by the private sector.

In the short term, the World Bank suggests that the Government should refresh the LTC strategy and consolidate responsibility for LTC policy, expand LTC services in direction of community-based care; decrease publicly provided LTC care and financing fragmentation.

The new Draft Social Welfare Act is currently in the process of public debate. If enacted, it will be the third, completely new legislative instrument in this area in the last three years. The aim of the Act is to increase efficiency, transparency, access to information, professionalism and to raise awareness of the beneficiaries and other members of society about their rights. The Draft Act therefore proposes new criteria of eligibility for social welfare assistance and services, establishment of the standards of quality of social services, measures for further deinstitutionalisation and creation of new non-institutional high-quality types of services, which will enable social inclusion of beneficiaries, as well as establishment of a unified registry of beneficiaries of social services and compensations. Guaranteed minimum income as a new form of social welfare compensation will be introduced, which will be determined by authorities each year, in accordance with the available resources, and to which each person or household with insufficient means of livelihood will be entitled. This income will be assets-means tested, which means that the new criteria for the determination of personal assets will be established. Public debate on the Draft Act was open until 13 October 2013.

The leading opposition party HDZ has criticised the proposed reform of the system of palliative care and organisation of five regional centres, as not suitable for solving the existing problems. They emphasise that the aim of palliative care is not to place the patient in a hospital, especially in some other region, but to provide adequate care in their home and

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<sup>97</sup> World Bank (2012), op. cit. (FN 62).

familiar environment. They suggest reorganisation of existing capacities and their allocation for palliative purposes, as well as establishment of mobile palliative teams.<sup>98</sup>

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<sup>98</sup> Retrieved at <http://dalje.com/hr-zagreb/hdz--postojece-kapacitete-prenamjeniti-za-palijativnu-skrb/448137> on 30 October 2013.

## 5 References

- BEJAKOVIĆ, Predrag (2011), Mirovinski sustav u RH: problem i perspektiva, Okrugli sastav Banke i Instituta za javne financije, Zagreb, 19 January 2011 (powerpoint presentation).
- BOGUT, Marina; VONČINA, Luka; YEH, Ethan (2012), Impact of Hospital Provider Payment Reforms in Croatia, World Bank Policy Research Working Paper 5992.
- CROATIAN BUREAU OF STATISTICS, Beneficiaries and services of social care 2011, First Release No. 8.4.1., 9 July 2012.
- CROATIAN FINANCIAL SERVICES SUPERVISORY AGENCY (HANFA), Monthly report August 2013, retrieved at <http://www.hanfa.hr/HR/nav/110/mjesecno-izvjesce.html> on 10 October 2013.
- CROATIAN INSTITUTE FOR HEALTH INSURANCE (2013), Izvješće o poslovanju HZZO-a za 2012. godinu (Business Report 2012).
- CROATIAN INSTITUTE FOR PUBLIC HEALTH (2013), Report on persons with disability in the Republic of Croatia, retrieved at <http://www.hzjz.hr/publikacije/invalidi12.pdf> on 10 October 2013.
- CROATIAN NATIONAL BANK, Note on Economic Developments, October 2013, retrieved at [http://www.hnb.hr/publikac/bilten/informacija/savjet/hinformacija\\_savjet\\_10\\_2013.pdf](http://www.hnb.hr/publikac/bilten/informacija/savjet/hinformacija_savjet_10_2013.pdf) on 14 October 2013.
- CROATIAN PUBLIC HEALTH INSTITUTE (2013), Croatian Health Service Yearbook 2012.
- EUROPEAN FOUNDATION FOR THE IMPROVEMENT OF LIVING AND WORKING CONDITIONS (2010), Second European Quality of Life Survey: Family Life and Work, retrieved on 05.03.2012 at <http://www.eurofound.europa.eu/pubdocs/2010/02/en/1/EF1002EN.pdf>.
- MIHALJEK, Dubravko (2012), Financing Health in Times of Crisis, presentation at the round table organised by the Magazine Banka and the Institute of Economics Zagreb on 06.02.2012 in Zagreb. Retrieved on 10.02.2012 at <http://www.bankamagazine.hr/Projekti/Analizazdravstvenogsustava.aspx>.
- MINISTRY OF FINANCE, Explanation of the State Budget and financial plans of extra-budgetary beneficiaries for 2013 and projections for 2014 and 2015; retrieved at [http://www.mfin.hr/adminmax/docs/Obrazlozenje\\_proracun\\_2013%20-2015..pdf](http://www.mfin.hr/adminmax/docs/Obrazlozenje_proracun_2013%20-2015..pdf) on 12 October 2013.
- MINISTRY OF FINANCE, Statistical reports (State Budget – January – August 2013), retrieved at <http://www.mfin.hr/hr/vremenske-serije-podataka> on 13 October 2013.
- MINISTRY OF SOCIAL POLICY AND YOUTH, Annual statistical report on rights in social welfare, legal protection of children, youth, marriage and persons devoid of capacity to exercise rights and on protection of bodily or mentally injured persons in Croatia in 2012, retrieved at [http://www.mspm.hr/djelokrug\\_aktivnosti/javna\\_rasprava/javna\\_rasprava\\_o\\_nacrtu\\_prijedloga\\_zakona\\_o\\_socijalnoj\\_skrbi\\_i\\_prijedlog\\_iskaza\\_o\\_procjeni\\_ucinaka\\_propisa](http://www.mspm.hr/djelokrug_aktivnosti/javna_rasprava/javna_rasprava_o_nacrtu_prijedloga_zakona_o_socijalnoj_skrbi_i_prijedlog_iskaza_o_procjeni_ucinaka_propisa) on 13 October 2013.
- NATIONAL HEALTH DEVELOPMENT STRATEGY 2012-2020, Official Gazette of the Republic of Croatia Narodne novine 116/2012.

- NESTIĆ, Danijel (ed.) (2011) *Izazovi i mogućnosti za ostvarenje primjerenih starosnih mirovina u Hrvatskoj* (Challenges and Possibilities for the Realisation of Adequate Old-age Pensions in Croatia), Ekonomski institut Zagreb.
- STATE AUDIT OFFICE, Report on financial audit of hospital health care facilities for 2011, retrieved at <http://www.revizija.hr/hr/izvjesce/izvjesce-o-obavljenoj-financijskoj-reviziji-bolnickih-zdravstvenih-ustanova-za-2011/> on 10 October 2013.
- VUKOREPA, Ivana (2012), *Mirovinski sustavi: Kapitalno financiranje kao čimbenik socijalne sigurnosti*, Sveučilište u Zagrebu.
- WORLD BANK (2012), *Croatia Policy Notes: A Strategy for Smart, Sustainable and Inclusive Growth*, Report No. 66673-HR.
- WORLD BANK (2011), *Croatia: Policy Options for Further Pension System Reform*, retrieved at [http://siteresources.worldbank.org/INTCROATIA/Resources/Croatia\\_Policy\\_Notes-Pension.pdf](http://siteresources.worldbank.org/INTCROATIA/Resources/Croatia_Policy_Notes-Pension.pdf) on 10.01.2012.

## Annex – Key publications

### [Pensions]

GUARDIANCICH, Igor, Pension Reforms in Central, Eastern and Southeastern Europe: From Post-Socialist Transition to the Global Financial Crisis, Routledge, London, New York, 2013, pp. 304.

This book deals with pension reforms in Central, Eastern and Southeastern Europe. It analyses the reform process and the related implementation of pension legislation in the period between the collapse of socialism and the financial crisis (2008-2009) in four countries: Croatia, Hungary, Poland and Slovenia. The book is based on the research, analysis and findings expressed in the author's doctoral thesis (2009) enriched with some up-to-date developments and conclusions resulting from the time of the financial crisis.

MIJATOVIĆ, Nikola, Nije li protuustavno, nepravedno i promašeno oporezivati mirovine rezidenata ostvarene u inozemstvu?, Radno pravo no. 02/13, February 2013, 71-79.

*“Is It Unconstitutional, Unjust and Wrong to Tax Pensions of Residents Acquired Abroad?”*

After 1 March 2012 pensions acquired by Croatian residents while working abroad are liable to income tax in Croatia. This mostly concerns citizens who have spent their entire working life abroad, and decided to spend their retirement in Croatia. The modification of the tax regime these persons are placed in unfavourable situation, because they have to pay much larger taxes than previously or which they would have to pay in the country in which they earned their pension.

NESTIĆ, Danijel (ed.), Izazovi i mogućnosti za ostvarenje primjerenih starosnih mirovina u Hrvatskoj, Ekonomski institut Zagreb, 2011 retrieved on 16.12.2011 at <http://www.eizg.hr/Download.ashx?FileID=7d4509d2-866d-47b7-8214-a2cbf38ff8b>.

*“Challenges and Possibilities for the Realisation of Adequate Old-Age Pensions in Croatia”*

The Croatian Pension System has been faced with numerous problems and challenges during the last two decades. Notwithstanding the adjustments conducted towards the end of 1990s and the structural reforms initiated in the beginning of 2000s, many ambiguities regarding the direction and manner of the future pension system development have remained. Not only have the implemented reforms failed to solve the problem of low pensions, but they also resulted in new distributions within the retired population, so that ideas of abandonment of initiated reforms and return to the old system have appeared. Therefore pension system reform remains a key priority of the Croatian government. The study ‘Challenges and possibilities for the realisation of adequate old-age pension in Croatia’, which emerged in 2011 as the result of the research conducted by a team of experts from the Economic Institute in Zagreb and the Faculty of Law in Zagreb, represents a significant contribution to the debates about future reforms of the pension system. The study was prepared within the project bearing the same title that was financially aided by the Adris Foundation. The study consists of three parts. The first part comprises three chapters that consider the problems and challenges of the pension system in Croatia, assess current adequacy of pensions and projections for the next forty years, and offer proposals for the measures for further pension system reform with the aim of ensuring adequate and sustainable pensions on the basis of the research results. The second part of the study analyses in more detail two topics connected with the reform proposals, and these are the control of the second pillar yields and the spread of financial and pension-related literacy in Croatia.

NESTIĆ, Danijel; TOMIĆ, Ivana, Primjerenost mirovina u Hrvatskoj: što mogu očekivati budući umirovljenici?, Privredna kretanja I ekonomska politika 130/2012, pp. 61-99.

*“Adequacy of Pensions in Croatia: What Can Tomorrow’s Pensioners Expect?”*

The paper explores the adequacy of old-age pensions in Croatia measured by the theoretical replacement rate. The adequacy is assessed for the next 40 years under a no-policy-change assumption. The results point to two major challenges for future pension benefits in Croatia: (i) reduction in the relative pensions measured by the replacement rate, and (ii) significant imbalance between pensions paid from the first pillar and those paid from both mandatory pillars. If nothing changes in the pension system, a worker who retires at 65 years of age after 40 years of service and who received a salary in the amount of the average wage in the country during his whole working life can expect the first pension to be approximately 53% of the last-year wage. In 2050, this ratio will be 37% and will possibly be the lowest in the European Union. The paper simulates the effects of several reform measures and shows that a combination of measures that could distribute the reform burden between citizens and the state budget has the potential to lead to adequate and sustainable pensions.

POTOČNJAK, Željko; VUKOREPA, Ivana, Cjeloživotno modeliranje portfelja u kapitalno financiranim mirovinskim sustavima određenih doprinosa, Privredna kretanja i ekonomska politika 130/2012, pp. 29-59.

*“Lifecycle Portfolio Modelling in Funded Defined Contribution Pension Systems”*

The implementation of funded defined contribution pension systems prompted a broad discussion on how to protect pension fund members from the various risks associated with capital markets. Investment risk management is traditionally carried out by investment rules (mainly investment restrictions). However, in single portfolio systems that allow pension savings in just one fund or a single portfolio for all members without making a distinction as to age, these rules are not adequate to prevent the timing risk, namely a sudden fall in the value of accumulated savings immediately before retirement. Consequently, new methods of lifecycle portfolio modelling have been developed. These new investment strategies are based on the age of retirement. Therefore, in this paper the authors analyze the different modalities of lifecycle portfolio modelling from the theoretical and comparative perspective. Two main model strategies have been highlighted: the model of funds of different risk levels (so-called lifestyle funds) and the model of target date funds (so-called lifecycle funds). Knowledge about and understanding of these strategies is important for the successful implementation of the three pillar pension system in Croatia, where two pillars are funded defined contribution systems.

RISMONDO, Mihovil, Od kada pripada invalidska mirovina?, Radno pravo no. 02/12, February 2012, pp. 36-39.

*“The Time of Accrual of a Disability Pension”*

As a rule, disability pension is acquired from the moment of disability, and is paid upon expiry of a period in which the right to sick leave was used, i.e. upon expiration of an employment relationship. Possible disputes in connection with these rights may delay the beginning of the payment of disability pension, but they have no impact over its amount. However, given that application of some provisions from the Compulsory Health Insurance Act may cause inconsistencies, there is a need to better coordinate rules regulating labour rights, health and pension insurance.

ŠTIMAC, Dubravko, Obvezni mirovinski fondovi – II stup hrvatskog mirovinskog sustava, Radno pravo no. 02/12, February 2012, pp. 40-46.

*“Compulsory Pension Funds – II Pillar of the Croatian Pension System”*

The pension reform of 2001/2002 created a new robust, more equitable and sustainable pension system. It is robust because despite the largest global crisis after the crisis of the 1930s it ensures to members the yields which are a bit better than those outlined as the objective of the work of the fund. It is more equitable because it links the size of pensions to the work of the beneficiary. Longer years of employment and higher incomes mean higher pensions. It is more sustainable because it has been shown that a Kuna invested into the second pillar is relatively more efficient than the Kuna invested in the first pillar, and since the amount of saved money determines future pensions, the risk of inactivity, i.e. of the too short period of employment is transferred from the society to individuals. So far the compulsory pension funds have met the requirement of the desired size and yield, despite the financial markets turbulence.

VUKOREPA, Ivana, Mirovinski sustavi: Kapitalno financiranje kao čimbenik socijalne sigurnosti, Sveučilište u Zagrebu, Zagreb, 2012.

*“Pension Systems: Capital Financing as a Factor of Social Security”*

The book is a result of a doctoral research and thesis by the author. The fundamental organisation problem of all pension systems lies on the preparedness of all future beneficiaries to invest in current and future income. This problem may be solved through public and private pension systems. They are observed from two different angles. Firstly, the analysis of their historical development aims to reveal the legitimacy of the existing models within the social security context. Secondly, the model of capitalised saving is analysed to determine the adequacy and efficiency of the existing normative solutions.

**[Health care]**

ANDRIJAŠEVIĆ, Lidija; ANGEBRANDT, Petra; KERN, Josipa, Users' Satisfaction with the Primary Health Care Information System in Croatia: A Cross-Sectional Study, Croatian Medical Journal Vo. 53(1), February 2012, pp. 60-65.

Aim of the paper is to evaluate the primary health care information system from the general practitioner's (GP) point of view. Sixty-seven Croatian GPs were distributed a questionnaire about characteristics of the GP's office, overall impression of the application, handling of daily routine information, more sophisticated information needs, and data security, and rated their satisfaction with each component from 1 to 5. We also compared two most frequently used applications – application with distantly installed software (DIS) and that with locally installed software (LIS, personal computer-based application). GPs were most satisfied with the daily procedures and the reminder component of the health information system (rating 4.1). The overall impression ranked second (3.5) and flexibility of applications followed closely (3.4). The most questionable aspect of applications was data security (3.0). LIS system received better overall rate than DIS (4.2 vs 3.2). Applications received better ratings for daily routine use than for overall impression and ability to get specific information according the GPs' needs. Poor ratings on the capability of the application, complaints about unreliable links, and doubts about data security point to a need for more user-friendly interfaces, more information on the capability of the application, and a valid certificate of assessment for every application.

BARTLETT, W.; BOZIKOV, J.; RECHEL, B. (eds.), Health Reforms in South-East Europe, Palgrave: Basingstoke, 2012.

Over the last two decades, the countries of South East Europe have engaged in far-reaching reforms of their health systems, including reforms of primary and secondary health care, new governance and funding arrangements, the privatization of health care provision, and the introduction of health insurance systems. However, comparative overviews of reform efforts in this part of Europe have been sorely lacking so far. This book addresses this shortage through the analysis of key aspects of health reforms in South East Europe, including primary health care, hospital care, health financing, decentralization and the internal and international migration of health workers. It provides a comparative analysis of health reforms and health workforce mobility in the region, and includes contributions from Bulgaria, Croatia, Macedonia, Montenegro, Romania, Serbia and Slovenia. The book will be of interest to a range of audiences, including researchers, medical practitioners and policy-makers.

BOGUT, Marina; VONČINA, Luka; YEH, Ethan, Impact of Hospital Provider Payment Reforms in Croatia, World Bank Policy Research Working Paper 5992, 2012.

*“Impact of Hospital Provider Payment Reforms in Croatia”* (original title)

Croatia began to implement case-based provider payment reforms in hospitals beginning in 2002, starting with broad-based categories according to therapeutic procedures. In 2009, formal diagnostic related groups were introduced, known locally as *dijagnostičko terapijske skupine*. This study examines the efficiency and quality impacts of these provider payment reforms globally on the Croatian health system by analyzing data on five procedures in acute health care for 10 years, between January 2000 and December 2009.

ČIPIN, Ivan; SMOLIĆ, Šime, Socio-Economic Determinants of Health in Croatia: Insights from Four Cross-Sectional Surveys, Croatian Economic Survey Vol. 15, No. 1, April 2013, pp. 25-60.

*“Socio-Economic Determinants of Health in Croatia: Insights from Four Cross-Sectional Surveys”* (original title)

The World Health Organisation (WHO) sees health as a resource for everyday life, a fundamental human right and, especially important for economists and social scientists, an essential component of the economic and social development of every modern society. Health determinants which could lead to better health can arise from both the social and economic side. The main goal of this paper is to exploit several cross-sectional socio-economic data sets available in Croatia to examine the extent to which individual health is related to certain demographic and economic determinants.

MILOŠEVIĆ, M.; BRBOROVIĆ, H.; MUSTAJBEGOVIĆ, J.; MONTGOMERY, A., Patients and Health Care Professionals: Partners in Health Care in Croatia?, A British Journal of Health Psychology, 24 July 2013.

Aim is to explore quality in hospitals from the patients' and health care professionals' perspective in line with Act on the Protection of Patient Rights.

OSTOJIĆ, Rajko; BILAS, Vlatka; FRANČIĆ, Sanja, E-zdravstvo – unapređenje zdravstvenoga sustava primjenom informacijske i komunikacijske tehnologije, Društvena istraživanja Vol. 21, No. 4 (118), December 2012, pp. 843-862.

*“E-Health – Improvement of the Health Care System through the Application of Information and Communication Technology”*

Concern about health is a continuous necessity, and in modern living conditions information and communication technology enables faster and simpler access to health care and

overcomes the gap between spatial and time distance, which simplifies the provision of services. A qualitative research was conducted in the form of semi-structured interviews with 49 participants in the Republic of Croatia from June to October 2011. In Croatia, there are several different models of health informatisation and this diminishes both the transparency and efficiency of the whole process as well as undermines e-health benefits for health and health care system improvement.

OSTOJIĆ, Rajko; BILAS, Vlatka; FRANČIĆ, Sanja, Challenges for Health Care Development in Croatia, *Collegium Antropologicum* Vol. 36 (3), September 2012, pp. 707-716.

The main aim of the research done in this paper was to establish key challenges and perspectives for health care development in the Republic of Croatia in the next two decades. Empirical research was conducted in the form of semi-structured interviews involving 49 subjects, representatives of health care professionals from both, public and private sectors, health insurance companies, pharmaceutical companies, drug wholesalers, and non-governmental organisations (patient associations). The results have shown that key challenges and problems of Croatian health care can be divided into three groups: functioning of health care systems, health care personnel, and external factors. Research has shown that key challenges related to the functioning of health care are inefficiency, financial unviability, inadequate infrastructure, and the lack of system transparency. Poor governance is another limiting factor. With regard to health care personnel, they face the problems of low salaries, which then lead to migration challenges and a potential shortage of health care personnel. The following external factors are deemed to be among the most significant challenges: ageing population, bad living habits, and an increase in the number of chronic diseases. However, problems caused by the global financial crisis and consequential macroeconomic situation must not be neglected. Guidelines for responding to challenges identified in this research are the backbone for developing a strategy for health care development in the Republic of Croatia. Long-term vision, strategy, policies, and a regulatory framework are all necessary preconditions for an efficient health care system and more quality health services.

OSTOJIĆ, Rajko; BILAS, Vlatka; FRANČIĆ, Sanja, Implications of the Accession of the Republic of Croatia to the European Union, *Collegium Antropologicum* Vol. 36 (3), September 2012, pp. 717-727.

The Republic of Croatia's accession to the European Union (EU) will affect all segments of economy and society, including the health care system. The aim of this paper is to establish the potential effects of joining the EU on Croatian health care, as well as to assess its readiness to enter this regional economic integration. The paper identifies potential areas of impact of EU accession on Croatian health care and analyzes the results of the conducted empirical research. In this research, a method of in-depth interviews was applied on a sample of 49 subjects; health professionals from public and private sectors, health insurance companies, pharmaceutical companies, drug wholesalers, and non-governmental organisations (patient associations). Once Croatia joins the EU, it will face: new rules and priorities in line with the current European health strategy; the possibilities of drawing funds from European cohesion funds; labour migrations; new guidelines on patient safety and mobility. From the aspect of harmonising national regulations with EU regulations in the area of health care, Croatian system can be assessed as ready to enter the EU. Croatia's accession to the EU can result in a better information flow, growth of competitiveness of Croatian health care system, enhanced quality, inflow of EU funds, development of health tourism, but also in increased migration of health care professionals, and potential increase in the cost of health care services. Functioning within the EU framework might result in adaptation to the EU standards, but it could also result in the concentration of staff and institutions in larger cities.

PELČIĆ, Gordana; ABERLE, Neda; PELČIĆ, Goran; VLAŠIĆ-CICVARIĆ, Inge; KRAGULJAC, Darko; BENČIĆ, Ivica; GJURAN COHA, Anamarija; KARAČIĆ, Silvana, Croatian Children's Views towards Importance of Health Care Information, *Collegium Antropologicum* Vol. 36 (2), June 2012, pp. 543-548.

The aim of research was to investigate: the need for health care information of Croatian adolescents aged from 13 to 18 years; the difference in evaluation of the frequency of receiving information between hospitalized and healthy children; if the hospitalized children expectations about the frequency of receiving health care information differed significantly from information they have actually received; whose information was most comprehensible to the hospitalized children (doctors, parents, other health care givers). The children were either hospitalized in the pediatrics departments or were high schools pupils (healthy children). The hospitalized children "Completely agreed" (92.7%) with the statement "When I am sick, I should receive information about my health" in comparison to the healthy children (85.1%). In comparison to healthy children, the hospitalized children assessed that doctors, other health care givers and parents should give them information more frequently. The experience of hospitalized children indicate that they received less information than they have actually expected. The information received from doctors was mostly in correlation with the understanding of this information. We concluded that the children want to be informed about their health, especially hospitalized children. Health care professionals should offer understandable health care information according to the children's expectation.

RADIN, D.; DŽAKULA, A., Has Anyone Seen It? Health Care in Croatian Elections, *Eastern European Politics and Societies* Vol. 26(1), 2012, pp. 189-212.

Over the past decade, public opinion surveys have shown that Croats are deeply dissatisfied with their health care system and assess it to be one of the most important issues. However, health care hardly makes it into any political discourse in Croatia. This study analyzes the results of a public opinion survey conducted before the 2007 parliamentary elections to find out what the public sentiment on health care performance in Croatia is and to analyze the reasons why health care is not addressed by political actors. Evidence suggests that while health care is the most salient issue today, the public often understands it poorly. Thus, in a political environment of competing issues, and given the complexity of tackling health care in the policy arena, politicians strategically avoid discussing the issue.

VONČINA, Luka; STRZIREP, Tihomir; BAGAT, Mario; PEZELJ-DULIBA, Dubravka; PAVIĆ, Nika; POLAŠEK, Ozren, Croatian 2008-2010 Health Insurance Reform: Hard Choices Toward Financial Sustainability and Efficiency, *Croatian Medical Journal* Vol. 53(1), February 2012, pp. 66-76.

while the previous reforms of the Croatian health care system paid little attention to root causes behind the system's financial unsustainability issue, the 2008 reform tried to address these through a set of coordinated measures targeted at both the demand and supply side of the system. Its importance is highlighted by the economic recession Croatia has undergone in the recent past that has made it hard to pursue alternative directions as it has seriously affected the government's ability to generate additional funds for the system. The implementation of the reform required tough choices such as substantially increasing private funding to the level of other Central European countries, but also coherent and sophisticated measures targeted at resolving system inefficiencies such as improving pricing and reimbursement regulation for medicines, changes to the primary care capitation model, the introduction of DRGs in hospitals and information technology in primary health care, etc. All represented changes to the inherited status quo and as such generated stiff

opposition from system stakeholders. Nevertheless, governments as long-term stewards have the responsibility of taking tough decisions. The Croatian 2008 reform did this, and future health reforms should build on its achievements to further improve the regulation of the system. Finally, its success has been recognized by international institutions such as the World Bank having in mind the improvements it introduced in fiscal sustainability, reductions in outstanding arrears, as well as investments in improved patient access.

VUČEMILO, Luka; ĆURKOVIĆ, Marko; MILOŠEVIĆ, Milan; MUSTAJBEGOVIĆ, Jadranka; BOROVEČKI, Ana, Are Physician-Patient Communication Practices Slowly Changing in Croatia? A Cross-Sectional Questionnaire Study, *Croatian Medical Journal* Vo. 54(2), April 2013, pp. 185-191.

Aim of the paper is to explore physician-patient communication practices during the process of obtaining informed consent in a hospital setting in Croatia. Methods Two hundred and fifty patients (response rate 78%) from five tertiary level hospitals in Zagreb, Croatia, anonymously filled in the questionnaire on informed consent and communication practices by Nemcekova et al in the period from April to December 2011. Eighty five percent of patients received complete, understandable information, presented in a considerate manner. Patients in surgical departments received a higher level of information than those in internal medicine departments. Patients were informed about health risks of the proposed treatments (in 74% of cases) and procedures (76%), health consequences of refusing a medical intervention (69%), and other methods of treatment (46%). However, patients pointed out a number of problems in physician-patient communication. Communication practices during informed consent-obtaining process in hospitals in Zagreb are based on a model of shared decision-making, but paternalistic physician-patient relationship is still present. Our results indicate that Croatia is undergoing a transition in the physician-patient relationship and communication.

### **[Long term care]**

LEUTLOFF-GRANDITS, Carotin, Kinship, Community and Care: Rural-Urban Contrasts in Croatia, *Ethnologie Française* Vol. 42(1), January 2012, pp. 65-78.

Based on the study of an urban and a rural field site in Croatia, the article analyses the meaning and roles of relatives in post-socialist Croatia. It argues that despite various commonalities, like the proximity of the close family and extensive family orientation, two rather distinct kinship rationalities are at place. In urban Travno, spatial proximity of the close family fosters intra-familial support, which enables families to react on the new flexibilities of the working life as well as supports women to establish themselves on the labour market. In the rural field site, in which the labour market situation is more constrained, family proximity and strong family values lead to the retreat of women into the domains of the household and of (subsistence) agriculture. Those who do not comply with it opt for outmigration. The growing importance of life stage festivals, in which the dense, overlapping networks of relatives, neighbours, friends and godparents, are recreated and values re-established, stabilizes village communities and their distinct kinship rationality.

ŠTERC, Stjepan; KOMUŠANAC, Monika, Neizvjesna demografska budućnost Hrvatske – izumiranje i supstitucija stanovništva ili populacijska revitalizacija...?, *Društvena istraživanja* Vol. 21 No. 3 (117), October 2012, pp. 693-713.

*“Uncertain Demographic Future of Croatia – Dying Out and Substitution or Revitalisation of Population...”*

The main objective and purpose of this study is to confirm the impossibility of revitalisation without a serious, responsible and focused population policy, to assess the potential for revitalisation (which still exists, despite many negative aspects of the Croatian demographic situation) and to place the issue of demographics within the foundations of the development and survival of contemporary Croatia. The most important result of the analysis is that Croatia, despite long time negative trends in all demographic processes, still carries demographic potential on a national level, particularly in the diaspora and has the ability, through incentives population policy, to stop the dying out and quick aging of the general population and initiate the process of its revitalisation, with the aim of economic development and the development of the country's future.

ŽGANJEC, Nino; LAKLIJA, Maja; MILIĆ BABIĆ, Marina, Pristup socijalnim pravima i osobe s invaliditetom, Društvena istraživanja Vol. 21 No. 1 (115), January 2012, pp. 59-78.

*“Access to Social Rights and Persons with Disabilities”*

The issue of access to social rights of persons with disabilities is part of the wider area of regulation of social rights in the contemporary world. The past fifty years were marked by significant progress in the establishment of social rights not only as possibilities and intentions, rather as a real contribution to raising the quality of life. This article has the following goals: to analyze the existing legislation concerning recognition of social rights of persons with disabilities in Croatia, including some elements of the functioning of the systems responsible for access to social rights for persons with disabilities; to outline some characteristics of the reforms carried out in the most important "social systems" in Croatia (social welfare, education, health care, pension and employment system); to establish the level of perceived accessibility of some social rights for their beneficiaries and the level of the expressed need for individual forms of social rights. The results of the study illustrate some trends and possible problems that people with disabilities face in accessing or attempting to access certain social rights

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