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1 Executive Summary

The latest changes to the mandatory **pension system** were legislated in 2010. Recently, in 2012, military pension beneficiaries have become integrated into the existing pension and disability insurance system and in May 2013, a minor labour taxation reform was introduced, changing the parameters of pension contributions and personal income tax.

The voluntary pension system saw legislative amendments in May 2011 with the view of securing a higher level of protection for the members of voluntary pension funds, as well as improving business conditions for voluntary pension fund management companies.

While generally it could be concluded that pensions in Serbia are still adequate, the sustainability of pension system is very questionable according to prevailing public and expert views. However, in the coming years, especially with the prospect of prolonged slowdown in economic growth and low employment levels, the pension adequacy will also come under pressure. Currently, the problem of pension sustainability is far more pronounced and urgent. Therefore, it appears that the pension reform is urgently needed both to preserve adequacy and to restore sustainability.

The discourses about the pension reform directions in the country are somewhat competing. The Government's Fiscal Strategy for 2013-2015 adopted in late 2012 envisaged the adoption of amendments of the Law on Pension and Disability Insurance in the first half of 2013 which would introduce actuarial penalties. Fiscal Council in June 2012 argued for the immediate nominal pension freeze to enable bringing the share of pension expenditures closer to the target level of 10% of GDP in 2020. In addition, Fiscal Council suggested the option of one-time partial pension cuts, as well as the option of taxation of higher pensions. Pension experts from the Center for Liberal Democratic Studies call for caution in cutting the pensioners' rights, in order to preserve adequacy and contain old age poverty.

In the recent period, the most important reform steps in the **health care system** were related to its financing. At the end of 2011 final activities were taken for the purpose of completion of the capitation concept at the level of primary health care and it was actually introduced in October 2012. Additionally, a five-year project aimed at changing the funding of secondary and tertiary levels of care by 2015 has been commenced, in order to implement diagnosis-related groups (DRGs). The effects of changed financing formulas are too early to assess, but there are critical tones that their introduction will generate only modest results. The main challenges to the health care system are: 1) to access – low access in practice especially of certain groups, aggravated affordability and unequal geographical accessibility; 2) to quality – lowering satisfaction of patients and professionals, lagging behind the EU regarding health indicators; 3) to sustainability – low health care expenditures which yet jeopardise the GDP.

A concept of **long-term care** is still fragmented between the social welfare and health care schemes mainly, with the addition of an element from the system of old-age and disability insurance. Long-term care is partially transferred to the sphere of private provision, by engaging private, both profit and non-profit sectors. But, despite all the developments, the most important role is still played by the families who are not adequately supported by the state programmes. Additionally, access and quality of long-term care are relatively low, and the financial sustainability is even more jeopardised, since it is the most underdeveloped objective in the national context.

2 Pensions

2.1 System description

2.1.1 Major reforms that shaped the current system

The Serbian pension system reform was based on a *Law on Old-Age and Disability Insurance* in 2003, its amendments in 2005, and the latest changes at the end of 2010.¹

Parametric reforms in 2003 within the public, mandatory PAYG system included raising the retirement age, changing the calculation formula and indexation, more stringent conditions for drawing disability pensions and for early retirement, and elimination of some benefits. Radical measures taken in 2003 also included one-off rise in the retirement age by three years (from 55 to 58 for women and 60 to 63 for men). Changes in the 2005 legislation were aimed at reducing public spending and achieving macro-economic stability. The retirement age was raised by additional two years, but the implementation took place gradually (every six months) until 2011. These changes also included less generous pension indexation, by the transition from the so-called Swiss formula to the indexation based on the cost of living (but not earnings), provided that the average pension may not be less than 60% of the average salary by the end of 2008 (Vuković, 2009).

Pension reforms in Serbia were structured around discussions on privatisation of pension funds and possibilities of implementing the three pillar system. While far reaching parametric changes in the compulsory insurance (1st pillar) and the introduction of a 3rd pillar (voluntary private) were accepted, the introduction of the 2nd pillar was delayed and eventually abandoned due to the high transition costs, the underdevelopment of capital markets, and the deficit in the compulsory insurance fund. The *Law on Voluntary Pension Funds and Pension Plans*² was adopted in 2005 but the 3rd pillar remains relatively underdeveloped.

At the end of 2010, a new set of changes in the pension system was adopted (Vuković, Perišić, 2010). These changes aimed at preserving sustainability of the system by gradual tightening of the conditions for retirement on the basis of the “full qualifying period” and minimum retirement age (anticipated pensions), privileged qualifying periods (accelerated pension benefits) and rules related to the indexation of pensions.

2.1.2 System characteristics

Organisation. Mandatory pension and disability insurance in Serbia is the safeguard against three main types of risks: old age, disability and spousal survivor risks. Until recently, insurance was organised into three separate state funds, which were consolidated administratively by 2008, while the complete merging of the funds was realised in 2011. Pension and disability insurance of military pension beneficiaries was regulated separately, but since 2008, pension benefits indexation has been regulated in the same manner as the indexation of general pension benefits. As of 2012, the military pension beneficiaries are integrated in the existing pension and disability insurance system.

Financing. The system of mandatory pension insurance in Serbia is based on the pay-as-you-go (PAYG) principle. This means that all employed, self-employed persons and farmers are obliged to pay contributions to the Republic Fund for Pension and Disability Insurance. Since

¹ *The Law on Old-Age and Disability Insurance*, “Official Gazette of RS” numbers 34/03, 85/05, 5/09, 107/09 and 101/10.

² *The Law on Voluntary Pension Funds and Pension Plans*, “Official Gazette of RS” number 85/05.

May 2013, the total contribution rate for compulsory pension insurance amounts to 24%³ and it is divided between employee (13%) and employer (11%). For contributors entitled to accelerated years of service, employers are obliged to pay additional contributions. Tax administration collects all contributions and distributes them to the Pension fund and other compulsory social insurance funds. In order to reduce the effects of employer induced contribution evasion on the rights and coverage of contributors, in 2010 the Government decided to refund missing contributions in the period from January 1st, 2004 to December 31st, 2009.

According to the financial plan of the Fund for 2013⁴, the revenues will amount to RSD 594.283 billion (around EUR 5.21 billion), which is in nominal dinar terms higher by 5% compared to the revenues in 2012, and in real and Euro terms practically unchanged. In 2012, the increase was quite significant, at 13%, as a result of inclusion of over 50,000 hitherto separately insured military professionals into the Pension Fund. In 2013, budget subsidies to the Pension Fund will be kept slightly below 50% of its total expenditures on pensions, an improvement compared with 2012, when only 48.7% pension expenditures were financed from the contributions. In 2012, Pension Fund participated with 19.7% in consolidated public revenues and with 31.8% in consolidated public expenditures⁵.

Eligibility conditions (retirement age). The *Law on Old-Age and Disability Insurance* provides for the rights to old-age, disability and survivor pensions, as well as the rights to compensation for personal damage, allowance for care and support, and funeral grants (Vuković, 2009: 90). The right to an old-age pension can be exercised at the age of 65 for men and 60 for women with at least 15 years of coverage. In 2013, contributors aged 54 with a qualifying period of 40 years (men) and 53 years and 4 months with a qualifying period of 35 years and 4 months also have the right to old-age pension. According to current law, these conditions will be gradually tightened until 2023 to reach 58 years of age and qualifying period of 40 years (men) and 58 years of age and qualifying period of 38 years (women). Finally, contributors irrespective of their age can realise this right with 45 years of coverage (article 19).

The second part of introduced changes relates to the accumulation of pension rights based on privileged qualifying periods. For the privileged categories (persons performing specific duties in the Department of the Interior, intelligence agency, Ministry of Foreign Affairs, Tax Administration, as well as military contributors) the new law provides for an increase of the minimum retirement age from 53 to 55, to be gradually implemented in the period between 2011 and 2016. The retirement age for some privileged professionals can still be reduced to 50 years if they exceed the statutory contributory period. Every additional year counts for six months of early retirement.

Pensions formula/benefits. Under the point system, the pension benefit level is determined by multiplying the number of personal points by the general point value on the day of retiring.

$$\text{Pension benefit} = \text{PP (Personal Point)} \times \text{GP (General Point)}$$

The personal point is defined by the following formula:

$$\text{PP} = \text{Personal Coefficient (PC)} \times \text{Pensionable Service (PS)}$$

³ The *Law on Contributions for Compulsory Social Insurance* ("Official Gazette of RS" numbers 84/04, 61/06, 5/09, 52/11, 101/11) defines the following rates: for pension and disability insurance 24%, for health insurance 12,3% and for unemployment insurance 1,5%. Therefore, the total burden for salaries is 35,8%.

⁴ <http://www.pio.rs/images/dokumenta/statistike/Finansijskiplan/2013/predlog%20fin.%20plana%202013-lat.pdf>.

⁵ Bulletin of Public Finances, Ministry of Finance of Serbia, July 2013.

The PC represents the average of annual personal coefficients, whereas the annual personal coefficient represents the ratio of total earnings of the insured for each calendar year to the average annual earnings in the country for the same calendar year. Pensionable service is a broader term, apart from the years of insurance (years of service, including accelerated years of service) it also includes special years of service (additional benefit for women, women with three children).

Pensionable service can amount to 45 years at most. Each year of service equals 1, and one year of service above 40 years is calculated as 0.5 – up to the 42,5 at most. When the level of an old-age pension benefit is calculated for a female, years of service are increased by 15%, but the increased service can add up to 40 years at most. The Law gradually decreases this percentage to 6% until 2019.

Indexation and taxation. According to the new 2011 regulation, the pension benefits are indexed two times a year (on April 1 and October 1) to the consumer prices growth in Serbia in the previous six months. In case that GDP in the previous year records a growth rate of more than 4%, pensions would be additionally indexed on April 1st by the percentage representing the difference between the actual growth rate and 4%. Therefore, GDP represents a “trigger” and a parameter in the general point indexation and pension in payment (Stanić, 2010). In 2012, pensions were raised twice according to the valid legal regulations, on April 1st and October 1st when pension amounts were increased by 0.9%. In 2013, pensions were increased by 2% in April and by 0.5% in October.

Pension benefits are not taxed. Only health contribution rate is paid from the gross pension at the rate of 12.3%.

2.1.3 Details on recent reforms

In May 2013, a minor labour taxation reform was introduced, changing the parameters of pension contributions and personal income tax (PIT), still largely preserving not only revenue neutrality from the macro-financial standpoint, but also the relative tax burden at various individual income levels. The personal income tax rate was reduced from 12% to 10%, while the untaxed amount was increased from 8,776 dinars to 11,000 dinars per month. On the other hand, the total pension contribution rate was increased from 22% to 24% from gross wage, by increasing the contribution rate from a worker’s gross salary from 11% to 13%. The true purpose of this change has little to do with potential employment enhancing effects. The reform was introduced in the first place to reduce the revenues of municipalities, who are entitled to 80% of personal income tax revenues collected from their residents, and in the second place to increase own revenues of still heavily subsidised Pension Fund. This measure has been introduced *via* changes in two laws – on Personal Income Tax and on Social Security Contributions.

2.2 Assessment of strengths and weaknesses

2.2.1 Adequacy

Coverage of the system. In 2012, there were on average 2,072,066 contributors (1,518,792 employees (excluding military professionals), 208,256 self-employed and 172,509 farmers) and a total of 1,703,140 beneficiaries (1,420,892 employees, 66,718 self-employed and 215,530 farmers)⁶. According to the type of pension, there were 58.4% old age pensioners,

⁶ Annual Statistical Bulletin of the Pension Fund, 2012.

19.76% disability pensioners, and 21.59% survivor pensioners. However, according to the *Information Bulletin* of the Pension Fund, on 30 June 2013 the total number of contributors (some of them apparently appearing sporadically based on atypical labour contracts which include payment of pension contributions) was higher, and stood at 2,496,817 contributors (employed 2,016,577, self-employed 311,776, and farmers 168,464).

Replacement rates. Real average pension benefit in previous years has been increasing significantly. During the first years after the political change in 2000, this growth has been extremely high. Later, pension benefits continued to grow steadily at around 5% annually; then the real pensions increased by as much as 14% with two large adjustments in 2008. Although immediately after extraordinary adjustment pension benefits were frozen, this growth was carried over to 2009 as well, while in 2010 pension benefits recorded a real decrease for the first time in ten years.

Ratio of average pension benefit for the employees and net wage in 2012 stood at 60.5% of average wage, down from 68.4% in 2009. In interpreting this ratio caution is advised, since the average pension includes disability and survivor pensions, which are much lower than old age pensions, and they still make up around two fifths of total pensions. Furthermore, average pension benefit reflects also work history of pensioners, and most of them (around 77%) did not fulfill the condition of full years of service. Replacement rate for pensioners with full years of service is on average around 80%, frequently it could be as high as 90% (Fiscal Council, 2012), or in some exceptional cases even higher than 100% (Stanić, 2010).

As the main indicator of the pension system design, the replacement rate shows that in the past decade the pension system provided more than an adequate replacement of income in the old age, at least for the persons who worked the full service. Comparatively, this rate is still adequate, but the situation might change in the following years due to the new restrictive rules governing the general point indexation (Stanić, 2010). In the absence of actuarial penalties for those pensioners who retired early, it could be also said that they received adequate replacement as well.

Replacement rate in the category of self-employed has mimicked, in relative terms, the trends in the category of employees. However, average pension was somewhat lower, reflecting lower average wages in this category, and thus the ratio between average self-employed pension and average nation-wide wage was somewhat lower. It was reduced from 67.1% in 2009 to 57.8% in 2012. Finally, for the category of farmers, this indicator is very low, reflecting their symbolic contributions. The ratio between average farmer's pension and average nation-wide wage dropped from 25.6% in 2009 to 23.4% in 2013. Somewhat the slower drop compared with the other two categories reflects the additional protection of very low pensions via the institute of minimum pension benefit. A guaranteed level of income in old age is realised according to legal regulations on minimum pension payment for old-age and disability pensions (without survivor pensions).

In 2005, minimum pension benefit for farmers was set at 20% of average wage, while for the other two categories (employees and self-employed) it was set at 25% of average wage, despite the fact that all categories were obliged to pay the same minimum contribution calculated (since 2007) at the minimum base of 35% of average wage. However, most farmers have short qualifying periods, which is probably the reason for this discriminatory treatment (Mijatović, 2010). In 2012, average years of service for employees retiring as old-age

pensioners were 36 for men and 30 for women, for self-employed 34 and 29, respectively, while for farmers they were only 23 and 19, respectively⁷.

The changes at the end of 2010 provided for extraordinary adjustment of the minimum pension on January 1st, 2011 by 1% compared to the minimum pension paid in 2010. It was also determined that the minimum pension cannot be below 27% of the average net wage in the preceding year. For retired farmers, the minimum (old-age and disability) pension was determined at RSD 9,000 (EUR 90) on January 1st, 2011, and it shall also be adjusted in the manner provided by the law.

Survivor pensions are on average much lower than old-age pensions, at only about 50% of the amount of old-age pensions. This particularly affects women who are predominant in the total number of survivor pensioners. The right to survivor pension is conferred to the family members of a deceased insured person or pensioner. Survivor pension is calculated as a percentage of old age or disability pension benefit that would have been paid to the insured or the beneficiary at the time of his/her death, and it is determined according to the number of family members entitled to the pension - 70% for one member; 80% for two members; 90% for three members; and 100% for four members.

Poverty index among farmer pensioners and survivor pensioners is 12% and 8.1%, respectively. Contrary to that, only 6% of old-age and disability pensioners realised the rights to minimum pensions (Vlada Republike Srbije, 2011).

Table 1 presents the trends of minimum/lowest pensions in relation to absolute and relative poverty line. As visible from the Table, minimum old-age pension has been slightly above both absolute and relative poverty line since the pension hike in 2008; minimum farmer pension continued to trail below relative poverty line, hovering around absolute poverty line, and finally, the lowest survivor pension has always been below both absolute and relative poverty lines.

Table 1. Minimum pensions in relation to absolute and relative poverty line, in dinars

	2006	2007	2008	2009	2010	2011
Absolute poverty line	6,621	6,625	7,401	8,022	8,544	8,853
Relative poverty line	7,171	7,747	8,923	9,583	9,763	10,971
Minimum old-age pension	6,878	7,667	9,946	11,088	11,088	11,809
Lowest survivor pension	4,815	5,367	6,962	7,762	7,762	8,266
Minimum farmer pension	5,171	5,700	7,446	8,385	8,385	9,000

Source: Government of Serbia, SIPRU Team, unpublished data.

Elderly and pensioners are beneficiaries of services and cash benefits in the public system of the state help for the poor. In 2007, 79,674 persons aged over 65 years of life used some form of aid and in 2010, this number increased by a third (106,800). The right to cash benefit in 2007 was exercised by 15,095 persons and in 2010 by 17,783. In the same period, there were much more persons who exercised the allowance for care and support – 21,293 (in 2007), i.e. 27,400 in 2010. In the same year, poor elderly were also users of one-time cash benefit or services in the homes for elderly (10,114) or pensioners' clubs (25,247) (Republički zavod za socijalnu zaštitu, 2012).

⁷ Annual Statistical Bulletin of the Pension Fund, 2012.

2.2.2 Sustainability

The sustainability of pension system is very questionable according to prevailing public and expert views. The core of the problem lies in the low and falling ratio of workers to retirees. In 2012, the total system support ratio (all contributors over all beneficiaries) was approximately 1.3:1 for all three categories of pensioners, while the support ratio within the largest type, employee insurance, was only 1.1:1. Such an unfavourable ratio is the result of large employment destruction, liberal retirement conditions applied in the past, the maturity of the system, and the ageing of the population.

Demographic projections do not provide much ground for optimism either, both in the medium and in the long term. The *baby boomers*, the most sizeable demographic cohorts in Serbia born between 1947 and 1957, have already started to retire and this process will intensify in the next years. The first female baby-boom cohort started to retire in 2008, while its male counterpart reached the statutory retirement age in 2013 (Stojilković, 2010). They are being replaced in the working age population by some of the smallest age cohorts, generations of the war-torn nineties. As a consequence, by 2020 Serbia's working age population will shrink at an annual pace of 30-40,000 persons (Arandarenko, 2011). This process is bound to continue until mid century.

On the other hand, the decline in total population will be somewhat more moderate, due also to extended life expectancy, since it is expected that the positive trends in longevity recorded in the last decade will be continued. At present, life expectancy for women at birth is 76,8 years, while for men it is 71,6 years (SORS, 2011), which is relatively low by European standards. In 2008, life expectancy of men at the then pensionable age of 63.5 was 14.8 years, while for women at the pensionable age of 58.5 it was 21 years (Stanić, 2010). For men, life expectancy at the pensionable age was among the lowest in Europe, while in the case of women, it was around average.

In 2012, average age of all old-age pension beneficiaries was 68 among the employee group, 67 among the self-employed, and 73 among farmers. For disability pension beneficiaries these numbers were lower, at 66, 63 and 62, respectively. Average age of deceased beneficiaries was 77 for men and 75 for women for old-age employee pensioners, 75 for men and 71 for women among the self-employed, and 80 for men and 77 for women among the farmers. The average number of years receiving benefits for deceased pensioners was 17 for men and 19 for women among the employees, 12 for men and 10 for women among the self-employed, and 14 for men and 16 for women among the farmers. Between 2008 and 2012, the average age of new beneficiaries among the employees increased steadily— from 60 to 63 for men and from 57 to 59 for women; for self-employed from 62 to 63 for men and from 57 to 59 for women, and for farmers it remained at steady levels of 64 for men and 60 for women (Pension Fund, 2012).

Both, the male and the female profile of economic activity is unimodal, with relatively high levels of participation at the prime age, between 25–49, and low levels for the youngest and older age groups. The labour force participation of males evolved substantially between 1981 and 2010. A decrease occurred in all the age groups, but was most significant for those aged 65+, at 30% of the initial level and for the youngest age group, 15–19, at 51% of the initial level. However, activity increased in the 60–64 group between 2002 and 2010, to reach 47%. This could be ascribed to the recent raising of the retirement age to sixty-five. Unlike in most developed countries, female participation rate also follows the unimodal pattern, avoiding a depression during the childbearing years. As a consequence, the female economic activity in 2010 was quite similar to the male, but with lower values. However, female activity has

relatively improved compared to male since 1981. Female activity rates for 2010 were lower than for 1981 in the 15–29 and 55+ age groups and higher in the remaining age groups (Kupiszewski et al, 2012). Despite the women catching up, gender employment gap is still significant and is above the EU average, standing at 11 percentage points in 2012 (Avlijaš et al, 2012).

Older people leave the labour market in Serbia relatively early, with the majority of men becoming inactive in the age range of 60-64, and majority of women already at the age of 55-59. Inactivity rate for persons aged 55-59 is above 50%, while for those in age range 60-64 it is above 75%.

The development of employment and unemployment rates for older workers in the period 2008-2012 is presented in Table 2.

Table 2. Employment and unemployment rates for older workers 55-64, in %

Labour market indicators, age group 55-64	2008	2009	2010	2011	2012
Employment rate	37.7	35.5	32.9	30.4	31.4
Unemployment rate	7.4	9.9	11.9	13.4	12.4

Source: Labour Force Survey, SORS (Statistical Office of Republic of Serbia)

There are over 100,000 people who are over 65 and still active on the labour market. Although they have employment rate of around 10% and make not so insignificant share of some 3% of the total active adult population, they are predominantly concentrated in agriculture and informal sector. In general, informal employment is more common among workers over 55, and especially over 65, than in the younger age categories – one out of four workers in the age category 55-64 is employed informally, as well as two out of three workers above 65. According to their status in employment, workers older than 65 are mostly self-employed and contributing family members (both dominantly in agriculture), while their participation in wage employment is practically negligible. It could be said that labour market activity for the non-agricultural population stops at 65, while it might be lifelong for many older members of agricultural households (Arandarenko, 2012).

According to the last revised projection of the Statistical Office of Republic of Serbia, the share of population over 65 in total population will increase from 16.9% in 2010 to over 20% in 2050. In the low fertility variant of the projections, which Zdravković et al. (2012) consider the most realistic one, that share will reach 26.7% in 2050.

Population projections inclusive of migration until 2041, created by Kupiszewski et al. (2012) develop the *Optimistic* (Serbia joining the EU by 2021), *Pessimistic* (Serbia not joining the EU at all) and *Status Quo* (extrapolating the present trends) scenarios. In the *Optimistic* scenario, the Serbian population will drop to 5.55 million, a decrease of 1.7 million within the next 30 years, which makes up 23% of the original population. The main driver of this decrease would be the negative natural change, at –1.4 million. At 21%, labour force changes will be slightly smaller, in relative terms, than the changes in the entire population. Significant structural changes affecting the sustainability of pension system should be expected, as the population aged 65+ will increase by 14% over the forecast period. The *Pessimistic* forecast, which assumes higher migration losses, at –447 thousand, predicts a 26% population decrease over the same period. Finally, the extrapolation of the observed *Status Quo* values over the thirty years would lead to a 30% decrease in the total population and a 34% decrease in the labour force size. This is the most ‘penalising’ scenario of all. The decrease through natural change in the *Status Quo* scenario is much higher than in both

forecast variants, being 24% higher than in the *Optimistic* scenario and 23% higher than in the *Pessimistic*.

Zdravković et al. (2012) develop a long-term projection of pension expenditures in Serbia until 2050 based on current regulation, demographic projections and additional assumptions on the activity rates of elderly people. According to them, the total number of pensioners projected in 2050 would reach 1.82 million.⁸ Under the assumption that the pension bill grows in the period 2011-2050 at the same pace as in the period 2005-2010 (by 4.23% annually), they arrive to the explosive and clearly unsustainable growth projection – pension bill would reach 16.4% of GDP in 2020, 20.3% in 2030, 24.8% in 2040, and 31.2% in 2050.

Reform proposals mostly focus on measures related to cutting pension entitlements in order to return to sustainable path. Flexible forms of employment, often preferred by older workers, are generally underdeveloped. Part-time working arrangements are penalised by the tax-benefit system because of high minimum mandatory social security contribution requirements (see Arandarenko et al., 2012), and are consequently relatively rare in Serbia, comprising 9% of total employment, and even less in formal sector. There are no special making work pay arrangements for older workers under and above statutory retirement age.

There are no government or private-sector sponsored efforts to create ‘second careers’ and ‘end-of-career’ jobs. There are very little efforts to promote transfer of experience and support prolonged work of older workers as a means of knowledge transfer (Arandarenko, 2012). This practice is tolerated only at the top of the work hierarchy – among top politicians, university professors etc.

2.2.3 Private pensions

The *Law on Voluntary Pension Funds and Pension Plans*⁹ was adopted in 2005. It regulates the organisation and management of voluntary pension funds; the establishment, operation and business dealings of management companies; tasks and duties of the custody bank.

Amendments to the Law were adopted in May 2011 with the view of securing a higher level of protection for the members of voluntary pension funds, as well as improving business conditions for voluntary pension fund management companies. The minimum age limit for the withdrawal of funds in the form of pension remuneration (pension) has been increased from 53, which had been the limit until then, to 58 years of age. One-time withdrawal is allowed for up to 30% of the accumulated amount of funds (these amendments do not apply to the existing participants in the voluntary pension insurance). It is allowed to deposit a higher amount of assets in banks, as well as to invest in short-term securities issued by or guaranteed by banks and so on (Rakonjac-Antić et al., 2013).

Voluntary pension funds. Voluntary insurance, which is underdeveloped in Serbia, is realised via private pension funds. The National Bank of Serbia supervises and regulates in more detail various aspects relevant for the functioning of the voluntary pension funds.

Since 2006, the National Bank of Serbia has issued nine working licences to management companies. At the end of the second quarter of 2013 there were five management companies, three custodian banks and four intermediary banks (National Bank of Serbia, 2013).

⁸ Zaman and Marković (2011) arrive at the estimate of 2.13 million in 2050, under the assumption that the statutory retirement ages for men and women remain unchanged.

⁹ “Official Gazette of RS” number 85/05.

In the second quarter of 2013, net assets of voluntary pension funds reached over RSD 18 billion dinars, which is an increase of 27% compared to the same period of the previous year. The market is highly concentrated. In comparison to 2008 (9 companies) and 2009 (9 companies), there has been a decrease in the number of voluntary pension funds management companies. Market concentration is relatively high. Four funds occupy almost 96% of the voluntary pension insurance market, and the largest fund has a 41% share in the net assets of the sector.

The main factor affecting the development of the voluntary pension insurance system is the market potential for participation. Around 240,000 contracts on voluntary pension insurance have been concluded so far. The room for the development of voluntary pension insurance should be sought in the so-called group insurance, i.e. insurance sponsored by employers, through increased tax relief, which in 2013 stands at the modest amount of slightly over 5,000 dinars (Rakonjac-Antić et al., 2013).

Pillar III remains too small for now. Its further development depends on progress and credibility of financial institutions and financial markets, but ultimately its efficiency depends on the pace of general economic and wage growth.

2.2.4 Summary

While generally it could be concluded that pensions in Serbia are still adequate, the sustainability of pension system is very questionable according to prevailing public and expert views. However, in the coming years, especially with the prospect of prolonged slowdown in economic growth and low employment levels, the pension adequacy will also come under pressure. Since 2009, the old-age pension to wage ratio has dropped by around 8 p.p. as a combination of temporary freezes and new indexation rules. Minimum old-age pension at the moment hovers around relative poverty line, while minimum farmer pension and lowest survivor pension are already around or below absolute poverty line. However, based on the fact that people over 65 years faced somewhat lower than average poverty risk in 2011¹⁰ in comparison with the general population, it could be said that the pension system still provides adequate protection of living standard of older population.

The problem of pension sustainability is far more pronounced and urgent. The core of the current problem lies in the low and falling ratio of workers to retirees. The prevailing view is that in order to reduce macroeconomic imbalances (for example, in 2013 various estimates are that the level of budget deficit will be around 6-8% of GDP, while public debt will reach 60-65% of GDP) and boost growth, radical reform of pension system should be started as soon as possible.

It appears that the pension reform is urgently needed both to preserve adequacy and to restore sustainability. Without the reform, problems can only get worse in either of the two scenarios – first, allowing further increase in the share of pensions in GDP, and another, involving drastic pension cuts to contain that increase. If pension spending is allowed to balloon pension spending would bring macroeconomic instability which would undermine the entire economy. If pension spending would be contained mostly through limiting the benefits, pensions would be over time become only sufficient to alleviate extreme poverty, but not to support income. In both scenarios, workers would be discouraged from paying pension contributions, which would represent further source of instability for the system.

¹⁰ The latest, yet unpublished data on poverty, made available by the SIPRU Team of the Government of Serbia.

2.3 Reform debates

In principle, the key issue in the pension reform is to make a pension system sustainable in the long run and credible for the future generations, while ensuring its main objective of providing adequate income security for the elderly population.

High current pension expenditures put a heavy burden on public resources. On the other hand, with the decline in employment after the start of the economic crisis, pensions represent a growingly important and often single source of regular income for many families. Therefore it is not surprising that frequent announcements of pension reforms or expert opinions arguing for the reduction of the entitlements of pensioners (cutting real pensions, prolonging statutory retirement age, equalising retirement age for men and women, introducing penalties for early retirement etc.) are met with fierce resistance in the general public and especially by the organisations representing workers' and pensioners' interests.

For any pension system, securing its long-term sustainability represents a key requirement. There are basically two options to restore the balance of the system:

- (i) Reducing the expenditures by modifying the pension formula and/or raising the retirement age, and changing the indexation method, whilst minimising the administrative expenses;
- (ii) Increasing revenues by increasing the contribution rate, or by extending the contributory base through improved compliance of the Law, efficient contribution collection, reduction in informal economy, and, the most desirable option, overall high employment growth.

The Government has repeatedly declared its readiness to embark on a thorough reform of the pension system. However, concrete reform proposals are usually met with resistance from the Pensioners Party, which is in power as junior partner since 2008, holding the key post of Deputy Prime Minister who is also in charge for the Ministry of Labour, Employment and Social Policy.

In the Government's **Fiscal Strategy** (FS) for 2013-2015 adopted in late 2012, there is a number of concrete pledges which have not yet been materialised. The FS states that the goal of the pension reform is to reduce transfers from the republic budget to the Pension Fund in the medium term, and to curb the increase in the number of pensioners by introducing penalties for early retirement, putting in place more stringent requirements for disability pensions and reduced service years for retirement. FS envisaged the adoption of amendments of the Law on Pension and Disability Insurance in the first half of 2013 which would introduce actuarial penalties which will provide that the workers who retire before regular retirement age limit receive a proportionately smaller amount of pension, and those who retire after the regular retirement age limit receive a proportionately larger amount of pension, depending on the expected length of the pension receipt. Implementation of these measures was expected to result in a saving of about 0.1% of GDP in the first years of application, and of 0.4% of GDP once full long-term effects of introduction of the actuarial factors of equity are reached. However, these amendments have not yet been prepared. The **Fiscal Council** (FC) in June 2012 created its own proposal for the consolidation of public finances (Fiscal Council, 2012). The FC argued for the immediate nominal pension freeze, to bring savings of around 0.4% of GDP annually in both 2013 and 2014, to enable bringing the share of pension expenditures closer to the target level of 10% of GDP in 2020. In addition, FC suggested to consider the option of one-time partial pension cuts, as well as the option of taxation of higher pensions. FC called for the continuation with the adopted pension indexation formula, implying indexation in line with inflation and GDP growth exceeding 4%, at least until 2020. FC also argued against a prospective transition to another form of a more generous pension

indexation formula because it would undermine the already fragile stability of the pension system. FC urged the immediate introduction of actuarial penalty factors (of 6% per each year of service) for retiring before and after the statutory retirement age and for additional increase of the retirement age for women, calling for the equalisation of retirement age for men and women until 2020. Some of the recommendations of the FC have clearly found their way into above presented Government's Fiscal Strategy, but almost none of them have yet been implemented.

On the other hand, pension experts from the Center for Liberal Democratic Studies (Matković, Stanić, Mijatović) take a somewhat less pessimistic view on the state of Serbia's pension system and call for caution in cutting the pensioners' rights, in order to preserve adequacy and contain old age poverty. They claim that comparatively Serbia is not at the top of European countries regarding the share of pensions in GDP, but rather closer to the middle, since the comparable net expenditures on pensions are below 12% of GDP, and not close to 14% as claimed by official sources. Furthermore, life expectancy is much lower in Serbia than in most other European countries, especially for women, thus any further increase in the retirement age has to take this fact into account.

The most recent announcement of the fiscal consolidation reform in 2014 by the restructured Government in early October 2013 has turned the attention to the governance reform and expenditure cuts, including wage cuts, in the public sector, rather than to the pension system reform. However, according to the Government officials, a thorough pension reform is a necessary next step and concrete solutions should be agreed upon in the course of 2014.

3 Health care

3.1 System description

3.1.1 Major reforms that shaped the current system

In Serbia, notably during the 1990s, an explicitly defined health policy almost did not exist. "Therefore the health care was developing beyond the actual possibilities of the society, within over-dimensional and inefficient infrastructure, neglected primary and overestimated secondary and tertiary levels of care, irrational usage of existing capacities, hyper-production of health personnel and many other problems" (Vuković, 2009: 134). Basic health care reform directions were determined in 2003, by enacting the documents on *Health Policy of the Republic of Serbia and Vision of Health Care Development* and the *Strategy and Action Plan of Health System Reform by 2015*. In the following years, the most important systemic laws were changed: the *Law on Medicines and Medical Agents* (of 2004), the *Law on Health Care*, the *Law on Health Insurance*, as well as the *Law on Chambers of Health Workers* (all of 2005). The *Strategy of Continuous Improvement of Health Care Quality and Patient Safety* and the *Strategy of Public Health* (both of 2009) additionally streamlined the development of health care, along with a series of strategies specific of certain medical challenges and various multi-sector strategies with a focus on health care reforms within the overall reforms in the society.

3.1.2 System characteristics

The public health care system is organised by a network of 385 facilities (RFZO, 2013a), operating at the primary, secondary and tertiary levels of care. Local communities are the

founders of health facilities at the primary level, and they are in charge of financing their construction, maintenance and equipment, but the funding of salaries, medical supplies, and medicines is under the jurisdiction of the Republic Health Insurance Fund and/or the Ministry of Health. In addition, the rules for the primary health care financing are regulated at the national level, as well as the criteria and standards of service provision and the number of employees. Health facilities at the secondary and tertiary levels of care are founded by the Republic, Province and the city of Belgrade.

Despite the dominant position of the public health care sector, there are also private health facilities, with steadily increasing numbers estimated at about 5,370 (RZS, 2010). According to data of the Private Medical Chamber, the number of private health institutions accounts for 8,500, out of which 4,500 are engaged in medical services, and the rest in dental and pharmaceutical services (PLS, 2012).¹¹

Public and private health sectors exist independent of each other, despite the proclaimed reform aims in respect of “increasing the participation of the private, profit and non-profit sector in rendering health care financed by the Republic Health Insurance Fund” (MZ, 2003: 25). One decade after the proclamation, apart from papers, there have not been almost any developments.

The legal introduction of the possibility of sub-contracting services, for which the Republic Health Insurance Fund would pay to private physicians, has not affected the change in the public-private mix, since this model has not been used in practice.¹² The practice has shown that the so-called temporary engagement in the private sector of physicians employed in the public sector is not a realistic solution for legal connection of the public and private health sectors in Serbia.

The public health care system is financed mainly from health insurance contributions (at a rate of 12.3%), which represent the largest source of incomes of the Republic Health Insurance Fund. Co-payments of patients constitute a very modest source of health care financing, even though the majority of patients (40%) pay participation fees (IJZ, 2013a: 46). However, their amounts are low (almost symbolic) and a wide range of persons is exempted from co-payment (elderly people, children, pregnant women, persons with disabilities, unemployed and recipients of social welfare benefits, etc.). In 2012, contributions accounted for more than 90% of the revenues of the Republic Health Insurance Fund while the state fund interventions, co-payments and donations accounted for 7% (RFZO, 2013a: 11).

The *Regulation of Voluntary Health Insurance* of 2008 envisaged the introduction of three types of voluntary health insurance in the national context: parallel, supplementary and private. It has stipulated that insurance companies and the Republic Health Insurance Fund (only parallel and supplementary health insurance) can operate a voluntary health insurance schemes.

Along with the entitlement to health care, benefit package consists of income compensation during temporary incapacity to work of the insured and travel allowance in connection with the use of health care (art. 30, *Law on Health Insurance*). The content of the right to health care has not been substantially changed in comparison with statutory provisions applicable before 2005, but eligibility criteria for the benefits have been tightened. First of all, the

¹¹ The Republic Health Insurance Fund estimates the number of private health care facilities at app. 2,000 (RFZO, 2013a: 9).

¹² Reasons for that are partially a result of “overlapping public and private health sectors, widespread corruption and inability of the state to introduce control systems” (Vuković, 2010: 215).

previously existing entitlement to funeral grant was eliminated. Another innovation is the conditioning of the rights to the benefits with the previous qualifying period (art. 32, *Law on Health Insurance*). The length of paying income compensation during temporary incapacity to work by the employer has been shortened. The employer pays the income compensation during the first thirty days of temporary incapacity to work. After this period, i.e. from the 31st day, the Republic Health Insurance Fund pays it (art. 102, *Law on Health Insurance*). A person is eligible for this benefit until the elimination of the causes for the incapacity to work (art. 78, *Law on Health Insurance*). However, one can receive this benefit for six months without any interruptions, or maximally 12 months during the last 18 months with interruptions. After that, the person is directed to a disability commission for the purpose of evaluating the loss of the working capacity (art. 82, *Law on Health Insurance*). Travel allowance can be claimed under more stringent conditions, i.e. the criterion of a distance to the place of health care provision has been changed (previously this allowance was paid from distances of at least 30km, now only from 50km) (art. 104, *Law on Health Insurance*).

3.1.3 Details on recent reforms

In the recent period, the most important reform steps were taken in the sphere of health financing, in terms of introducing the capitation system at the primary level of health care and diagnosis-related groups at the secondary and tertiary levels of health care. At the end of 2011, final activities were taken for the purpose of completion of the capitation concept and it was actually introduced in October 2012. Also, a five-year project aimed at changing the funding of secondary and tertiary levels of care by 2015 has been commenced, in order to implement diagnosis-related groups. Some of the reasons for the introduction of this financing model, presented by the Ministry of Health, are providing equality of all hospitals and all patients, basing payments on the best available data, and providing transparency when contracting health care services (RFZO, 2012). However, despite some progress, many pre-requisites for its implementing and consequent functioning have been still missing (necessary legal changes, communication and information requirements, etc.).

3.2 Assessment of strengths and weaknesses

An in-depth assessment of outcomes of planned and implemented health care reform measures has not been done so far, however researches into certain aspects of it, provide for partial insights.

The World Bank's assessment of 2009 is that "Serbia's health care system has experienced significant progress in the last 15 years" (World Bank, 2009: 22) primarily in two areas: the system management (reconstruction of several health centres, as well as some hospitals and clinics, improvement of medical equipment and capacities for the national production of vaccines, establishment of professional chambers, foundation of the National Agency for Quality and Accreditation) and activities carried out by the Republic Health Insurance Fund (solving the problem of huge debts and delays in paying, and taking steps towards partial rationalisation of the system, in terms of reducing number of beds and personnel, raising participation payment and reducing benefit package). A comparative view of health care in Serbia with the EU Member States suggests that, based on majority indicators, the situation in Serbia is completely comparable with the situation in the new EU Member States, and frequently even better. However, the productivity of health services is assessed significantly lower compared to the EU (World Bank, 2009: 28). Complementary to that, in 2010 the *Foundation for the Advancement of Economics* (FREN) finds out that "there is cost inefficiency in the health system" (FREN, 2010: 167). A comparison of the share of GDP of

expenditures for the public health care system in Serbia with the health expenditures in the countries in the region indicates that they are higher, while on the other hand, the results or outcomes of the health system are average (FREN, 2010: 167). Finally, pending financing reforms have been reported to present the key challenge to the health care system in many studies (European Commission, 2008; Mijatović, 2008; Vuković, 2009; World Bank, 2009).

3.2.1 Coverage and access to services

Mandatory health care covers 6,886,904 inhabitants:¹³ the majority of them, i.e. 42% are entitled to it on the basis of employment, while 28% are pensioners. Health care for 1,329,833 inhabitants or 19% of beneficiaries (unemployed persons, persons with disabilities, Roma, refugees, internally displaced persons, etc.) is financed from the Republic budget (RFZO, 2013b). Therefore, the coverage rate is app. 95-96% of the population. However, independent studies do not suggest almost universal coverage as suggested by the figures of the Republic Health Insurance Fund. The most severe situation is in the Roma population: in 2009, the rate of the Roma without health care was 24.7% (Vlada RS, 2011).¹⁴ Inadequate coverage with even primary health care is experienced by vulnerable groups as suggested by a research of social exclusion in rural areas conducted by Cvejić, Babović, Petrović, Bogdanov and Vuković of 2010, showing that 12.6% of the interviewed stated they did not have health insurance (Cvejić et al., 2010), while 20% of the interviewed stated that due to lack of money they could not buy necessary medicines, 8% could not buy medical appliances, and 17% could not pay for specialist check-ups (Cvejić et al., 2010). Therefore, along with the challenge of coverage and access to health care, also the challenge of affordability is present in the population of those at risk of poverty and especially the poorest quintile. A study by Idzerda, Adams, Patrick, Schrecker and Tugwell of 2011 suggests that availability of health services is not an issue that disproportionately affects the Roma, but the geographical accessibility and affordability (both of services and medications) (Idzerda et al., 2011). Similar to that, the Government's monitoring of social inclusion of 2012 reports that there are important differences between the general population and 20% of the poor regarding two indicators: "inability to access health care due to financial reasons"¹⁵ and "inability to provide medications, medical treatment and orthopedic appliances due to financial reasons"¹⁶ (Vlada RS, 2012: 41). The Government's data cannot be segregated based on gender, age, type of settlements, region, status of forced migrants, and disability (Vlada RS, 2012: 41). According to the survey of the Institute of Public Health of 2012, every tenth respondent reported that he/she did not visit a physician, at least once during the year, because of lack of money (IJZ, 2013a: 46).

The issue of geographical inaccessibility is present more prominently at the levels of secondary and tertiary health care. The World Health Organization applied *Primary Care Evaluation Tool* to find out that 2/3 of respondents could reach their physician or pharmacist in less than 20 minutes, but not the dentist. Contrary to that, only 20% of respondents could

¹³ In 2012, the population in Serbia accounted for 7,186,862 (RZS, 2013: 30).

¹⁴ The lack of personal documents, as an obstacle to the realization of the entitlement to health care, is related to the Roma, refugees, internally displaced persons, persons returned to the country based on read-mission agreements. The process of obtaining health care booklets for the Roma was facilitated to a certain extent in the recent period.

¹⁵ Reported based on statements of respondents that they refrained from visiting a physician or a dentist, undergoing a diagnostic treatment or therapy for at least ten times during one year, due to lack of money (Vlada RS, 2012: 41).

¹⁶ Reported based on statements of respondents that they could not buy medications and/or orthopedic appliances due to lack of money (Vlada RS, 2012: 41).

reach the hospital in the mentioned 20 minute time (WHO, 2010). Health care facilities in general are relatively equally distributed, but based on the prescribed standards. The similar applies to the indicator of the ratio of physicians per 100,000 inhabitants. Overall good ratio of 281 physicians per 100,000 inhabitants (RFZO, 2013a: 13) is threatened by “their very unequal distribution, i.e. high concentration of the personnel in urban areas, especially in big cities with parallel strong deficit with the personnel in rural areas” (RFZO, 2013a: 13).

A comparative survey of health care systems in 34 European countries of 2012 (*European Health Consumer Index*) positions Serbia at the bottom of table of European countries (Health Consumer Powerhouse, 2012),¹⁷ primarily regarding the accessibility to surgeries and diagnostic treatments (Health Consumer Powerhouse, 2012: 15).

3.2.2 Quality and performance indicators

A survey on the satisfaction of patients with the public health facilities conducted by the Institute of Public Health of Serbia of 2012, at the levels of primary, secondary and tertiary care reveals still high satisfaction. However, at the level of primary care, the satisfaction of 3.96 out of 5 (IJZ, 2013a: 13) is the lowest value for the last four years.¹⁸ An analysis of individual variables, except for longer waiting period on check-ups, shows even a discrete improvement or unchanged status compared to previous years. Actually, the measured satisfaction cannot be directly connected with aggravation of any of the variables. Its relation to the material status of households, which was statistically a significant factor of overall satisfaction, offers a part of the explanation of decreased satisfaction. At the secondary and tertiary care, the user satisfaction is negligibly lower (3.92) compared to the primary care and last year results (IJZ, 2013a: 26). Here also, an analysis of individual variables does not offer an explanation of lowered satisfaction. Differences between the regions were no significant, contrary to high differences between the districts of the country.

The satisfaction survey of employees of 2012 in public health facilities is also reduced. From 2006 to 2008, the satisfaction of employees had been rising and in 2009 it was almost the same as in 2008. In 2010 and 2011, it was minimally reduced and finally in 2012, less than 50% of health professionals were satisfied (IJZ, 2013b: 4), 8.2% were extremely satisfied (decreasing trend) and 7.7% were extremely unsatisfied (increasing trend) (IJZ, 2013b: 3). Differences in the satisfaction of employees are dependent on several factors: education level, type of institution and monthly income.¹⁹

Health indicators show improving results, but still huge differences for certain groups in the society have remained. Life expectancy at birth (76.8 and 71.6 for women and men respectively) and infant mortality rate (6.3 to 1,000) show improvement compared to previous years (IJZ, 2012: 5). A closer look to health indicators shows that they are comparatively worse for Roma. Life expectancy for the Roma is 10 years shorter, while mortality rate of Roma children is two times higher than the national average, and 20% of Roma children are ill conditioned (compared to 7% of children from general population). Other indicators of the health care quality also imply unfavourable status of the Roma. For example, according to the *Compulsory Immunisation Programme*, the coverage of children within the general population is 95%, and in the case of Roma children it is between 55-88%, depending on the

¹⁷ With 451 points out of 1,000, Serbia is on the 34th position out of 34 European countries, based on 42 indicators classified into five categories (Health Consumer Powerhouse, 2012).

¹⁸ The satisfaction levels in 2009, 2010 and 2011 were 4.02, 4.10 and 4.02 respectively (IJZ, 2013a: 14).

¹⁹ The effects of continuing education were less positively evaluated compared to previous years (IJZ 2013b: 14).

vaccine (Vlada RS, 2011). The malnutrition prevalence in Roma children is 8.3 contrary to children of general population of 1.7 (Vlada RS, 2012: 43). Finally, self-perceived health status, based on the level of income, is bad and very bad in 32% of the lowest quintile, contrary to 12% of the highest quintile (Vlada RS, 2012: 42).

3.2.3 Sustainability

In 2007, the share of total health care expenditures within GDP increased for one percentage point and became stable at about 10.4% since then. During the same period, private health care expenditures accounted for 4% of that (IJZ, 2012: 17). However, due to relatively low GDP, health expenditures in real terms are below the average of the European Union. Additionally, despite the stability of health expenditures within the GDP, health expenditures *per capita* oscillated both in real terms and expenditure components of the Republic Health Insurance Fund (private expenditures, public expenditures, expenditures of the RHIF). “Health expenditures in RSD have been increasing, with the stable share in the GDP, after their increase in 2007. *However*, in 2009, as a consequence of a slower increase of health care expenditures, negative rate of the GDP growth, and pronounced depreciation of the national currency to EUR, total health care expenditures *per capita*, expressed in EUR, were lower compared to the previous year. In 2010, total health care expenditures became stable at the level of EUR 412, i.e. US\$ 546 *per capita*. In 2010, expenditures of the Republic Health Insurance Fund amounted to EUR 240 *per capita*, while the public expenditures amounted to EUR 255 *per capita*. Private health care expenditures have been increasing at a higher rate, but in 2009 this rate was slowed down so that in 2010 they became stable at EUR 157 *per capita*” (IJZ, 2012: 17).

Efforts to contain costs and create a sustainable health care system have at least ambiguous effects. First, the new payment methods “did not generate expected results despite several projects of the World Bank and the European Union” (RFZO, 2013a: 12). Currently, both technical and allocative efficiency of the system is still low and adequate incentives for the improvement of health care quality are missing (RFZO, 2013a: 12). Second, the reduction of the number of employees as of 2006, based on an agreement made with the International Monetary Fund, eventually resulted in an acute problem of shortage of certain medical professionals (such as anesthesiologists, radiologists, general practitioners, caring nurses). Contrary to these shortages, the number of unemployed healthcare workforce has been increasing, partially due to uncontrolled inflow of all medical profiles from educational institutions. International experts estimate 3-4 times more health care professionals are being educated in Serbia than the demand is (RFZO, 2013a: 13). A survey by Santrić-Milićević, Vasić and Marinković of 2013 forecasts seven-year mismatch between the supply of graduates and vacancies in the public healthcare sector at 8,698 physicians - a net surplus (Santrić-Milićević, Vasić, Marinković, 2013).

3.2.4 Summary

National decision makers were the most hesitant to reform the health care system and therefore many measures were taken on an *ad hoc* basis. Due to that, their maneuver space has become significantly reduced and currently weaknesses of the system seem rather more pronounced than its strengths. The main challenges are: 1) to access – low access in practice, especially of certain groups, aggravated affordability and unequal geographical accessibility; 2) to quality – lowering satisfaction of patients and professionals, lagging behind the EU regarding health indicators; 3) to sustainability – low health care expenditures which yet jeopardise the GDP.

The obvious weaknesses regarding access, quality and sustainability of health care are additionally potentiated with those indirect: e.g. limitation of health care “basket” covered by the public insurance system, rather low quality standards, etc. Additionally, demographic and macroeconomic trends (will) continue to put pressure on health care system.

Underdevelopment of private health insurance and unclear regulations governing private health care sector present one of the most important challenges, along with devastating effects of private payments for health care on the living standard, especially but not only of the poor.

3.3 Reform debates

Health care reform debates in Serbia have been numerous; they are both external and internal. The external actors, primarily the World Bank,²⁰ were frequently conditioning their aid to the country by health care reforms, but were also very active in offering their health care reform expertise. The recommendations of the World Bank have ranged from: putting continued efforts into determining the optimal size of the facilities and the optimal number of employees to reducing salaries for health professionals working in the private sector, raising participation fees and re-evaluating benefit package (World Bank, 2009). The key to financial sustainability of the health system, according to the World Bank, is in the introduction of changed financing formulas (i.e. capitation at the primary level and DRGs at the secondary and tertiary levels).

The Government and/or Ministry of Health, as the main internal actor(s) of the debate, have been frequently lacking clearly defined attitudes and a true dialogue with the professional and scientific public. Therefore the activities of the Government and the Ministry in certain fields are not in compliance with actual practice and opinions of those employed in health institutions. The main reform objectives of the Government in general continue to be those declared a decade ago: the maintenance and promotion of the public health; equal access to health care; patient-centred system; creation of a financially sustainable system, along with transparency and selective decentralisation; improvement of efficiency and quality; defining the role of the private sector (MZ, 2003).

The Republic Health Insurance Fund presented the *Strategy of Health Insurance Development* in May 2013, calling for a changed position of the Fund. It is contemplated to be achieved through normative, organisational, technological, social-psychological, financial and managerial changes along with the preparation of the Fund for the European integration and development of health insurance (RFZO, 2013a). The *Strategy* lists the following activities towards the realisation of which the Fund should be devoted to:

- “1) financially sustainable health care system in the long run;
- 2) maintenance and promotion of the public health;
- 3) improvement of health care system efficiency and quality;
- 4) continuous and accessible health care;
- 5) better information of patients about their rights;
- 6) creation and commencement of the National Health Promotion Programme and health education of the population;
- 7) realisation of social and individual rights of patients; and
- 8) efficient management in health care insurance with a view to achieving the mentioned efforts” (RFZO, 2013a: 15).

²⁰ Also, the International Monetary Fund, the World Health Organization, and the European Union had their role in health care reforms in Serbia.

There seems to exist a broad consensus in the society about the need to realise all the mentioned objectives, but the mechanisms of their implementation seem weak and sometimes subject to corrupt practices.²¹

4 Long-term care

4.1 System description

4.1.1 Major reforms that shaped the current system

The period of reforms has “bypassed” LTC, particularly its segment belonging to health. LTC in the social welfare system was modified in the direction of non-institutional services and provision of services for the elderly in their homes. Additionally, certain reform steps forward were made, primarily in terms of the adoption of strategic documents. Various aspects belonging to the field of LTC and improvement of the situation and position of the elderly were discussed in a number of strategic documents adopted in the past ten years, which apply to the segment of social welfare, rather than health.

Consequently, LTC is not a separate part of the social protection system in Serbia. The competencies for LTC are divided between the social welfare and the health care systems. At the end of 2010, certain elements of LTC were reintroduced into the system of old-age and disability insurance. LTC is partially transferred to the sphere of private provision, by engaging private, both profit and non-profit sectors. But, despite all these development, the most important role is still played by the families.

4.1.2 System characteristics

In the social welfare system, the entitlements to LTC are twofold, i.e. there exist institutional and non-institutional services and cash and in-kind benefits. The competences for the institutional (residential) care lay at the Republic level and it is provided in public homes for adults and elderly people. Non-institutional services are organised in the forms of foster care, home-based assistance and clubs at the level of local communities. Foster care of elderly people has currently two forms: either they are accommodated in the foster family or the foster family is accommodated in their home. Home-based assistance is intended for those elderly people who are not capable of independent living in their homes. Contrary to the characteristics of elderly people entitled to home-based assistance, the beneficiaries of clubs for elderly are those people over 65 years of life whose physical and mental capacities are maintained and their primary purpose is to prolong the active role of elderly people in the society.

Benefits in the social welfare system to which elderly people (among others) are entitled are cash welfare benefits and allowance for support and care by another person. Since they are regarded as incapable of work, elderly people are entitled to cash welfare benefits, after means testing, throughout the whole year in an 20% increased amount (art. 85, *Law on Social*

²¹ Estimated data of the United Nations Development Programme for the health sector show that an average amount of bribe in October 2010 was EUR 225. The amount of bribe in October 2009 was EUR 169 (Danas, 13/04/2011). Additionally in 2013, 81% of respondents in the UNDP’s Global Corruption Barometer felt that the national health and medical services were corrupt and extremely corrupt (Transparency International, 2013).

Welfare). Allowance for support and care by another person is conditional upon incapacity of performing basic everyday activities (art. 92, *Law on Social Welfare*). Along with that, elderly people are entitled to one-off payments, which can be in cash or in-kind. They are intended to those of them in an acute need of support or those to be accommodated in a public home or foster family. Another type of in-kind support are public kitchens.

Accommodation in public institutions is partly financed by the state budget, and partly by the users. The amount to be paid by the user is dependent on his/her income, health situation, family status and ownership over real estate, and is limited to EUR 300 per month. Elderly people without income exercise this right at the expense of the budget in full (i.e. about 20% of beneficiaries of residential services). Day care services in the community, such as home-based assistance and clubs for elderly people, are financed from local budgets. Participation of elderly people in their financing is determined by local communities. The local Centres for Social Work are both in charge of deciding about the applications of candidates for residential care and providing services of foster care and home-based assistance, contrary to clubs for elderly people which are under auspices of public homes. While the cash welfare benefits and allowance for support and care by another person are financed from the Republic budget, one-off payments are financed from the local budgets. The entitlements to these benefits are assessed by the local Centres for Social Work.

In the health care system, the implementation and provision of palliative care at the primary level is organised through services for home treatment and in health care centres. Long-term medical care is also provided in the departments of the so-called prolonged treatment and care, at the secondary (general and special hospitals), and the tertiary levels of care (clinics). Persons over 65 constitute a distinct group in the health care system towards which special attention is directed, given their increased exposure to risks of disease (art. 13, *Law on Health Care*). Apart from that, there are no specifically defined or wider rights of elderly people to health care, compared to other age groups, but they are exempted from paying participation fee.

Pension contributors incapable of independent living are entitled to a fixed amount allowance for support and care by another person in the system of old-age and disability insurance scheme (art. 19, *Law on Old-Age and Disability Insurance*).

The private sector is dominantly, but not exclusively, concentrated on providing residential care for elderly people. Accommodation costs for private homes, amounting appr. to EUR 1,200 per month, are borne by beneficiaries.

Numerous non-governmental organisations (civil society) offer LTC services to elderly people, mainly in the domains of home-based assistance, psycho-social support and medical care. These services are frequently organised in cooperation with the local communities, they are coordinated with the programmes of international donors and they are mainly supportive to the roles of public sector and families. Since 2004, there has been HumanaS, a network of humanitarian organisations and associations of citizens dealing with the problems of elderly people. Its members are, among others, the Red Cross of Serbia (gathers 60,000 volunteers, out of which 20% are elderly), Gerontological Society, Caritas, Covekoljublje, etc.

The role of the family in meeting the needs for LTC in Serbia is central – the majority of elderly people have been relying on family support and “it can be estimated that their number is above 90% of elderly people” (Sauer, 2012: 86).

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

Legal reforms in social welfare of March 2011 built a stepping stone for the creation of integral protection of elderly people, via a provision on the establishment of socio-medical facilities “for those users who, because of their specific social and health status, have the need for social care and constant medical care or supervision” (art. 60, *Law on Social Welfare*). So far, their establishment is the only option of connecting the social welfare and health care systems. Integrated social and health care of elderly people was piloted on the local level (in Kragujevac and Novi Sad) on the project basis.²² Simultaneously, the development of community and home-based services for elderly people was encouraged, as well as the development of services for elderly offered by NGOs and the private sector. Legal reforms in health care in 2011 enabled the introduction of home treatment and services of medical and palliative care for elderly people in local communities. Based on this reform, such services are expected to be soon offered in bigger cities like Niš, Kragujevac and Novi Sad.

4.2 Assessment of strengths and weaknesses

4.2.1 Coverage and access to services

Coverage and access to services differ substantially, depending on whether they are related to the social welfare or health care schemes, whether they belong to services or benefits, et cetera. Even though available data are not sufficient to determine the exact number of elderly people covered by LTC, the coverage can be estimated at below 10% of the total population of elderly people in Serbia.

Residential care is provided in 45 public homes, with a capacity of app. 12,000 persons (MRZSP, 2013). Long waiting lists²³ have motivated private providers to offer residential care. Their development has been surprisingly dynamic: in the period from 2004 to 2010, 46 private homes were established, with a total capacity of 1,252 people (MRZSP, 2011). In the period that followed, when their number increased to 93, the capacities have doubled to account 2,431 elderly people (MRZSP, 2012). Still, below 1% of the population of elderly people²⁴ is covered by residential care in public and private sectors together. Both public and private residential capacities are extremely unequally distributed – the public ones are concentrated in big cities and the private ones are dominantly present in the capital city (due to highest demand and highest purchasing power).

Non-institutional services also suffer of an acute problem of low coverage and extreme regional disparities. Home-based assistance is the service for elderly people which is expanding the most in Serbia,²⁵ but at the same time, it is also the most needed. Currently its coverage is 9,963 elderly people in 155 local communities (Satarić, Mihić, Todorović, Satarić, 2013: 79). The clubs for elderly people exist in only 29 local communities²⁶ with

²² *Support to Reforms of Social Welfare for the Elderly People in Serbia* was agreed by the national Ministry in charge of Social Welfare, the Italian Government and NGO *Progetto Sviluppo*.

²³ In 2012, there were 9,615 elderly people on the waiting lists for residential care (RZSZ, 2013: 48).

²⁴ In Serbia, 16.9% of the population is aged 65+, i.e. there are 1,233,412 people over 65 years of life. Out of that number, 258,629 are over 80 years of life, accounting for thus to 20.9% and 3.5% of the population of people over 65 years of life and total population respectively (RZS, 2012).

²⁵ In 2008, home-based assistance programmes were developed in 79 local communities with coverage of 6,820 elderly people. In 2009, it was established in additional 38 local communities (Satarić, Mihić, Todorović, Satarić, 2013: 79). In 2010, elderly people represented 87.4% of beneficiaries of this service, out of a total number of 13,272. At the same time, a further 1,693 of elderly people was on the waiting list for home-based assistance (ACSR, 2011).

²⁶ They are missing in 132 local communities in Serbia.

coverage of 17,062 elderly people (Satarić, Mihić, Todorović, Satarić, 2013: 80). With 286 elderly people in foster families (RZSZ, 2013: 55), this form of care seems present only exceptionally.²⁷

Access to benefits is limited by means-testing, however, strict eligibility criteria result in an extremely small number of poor elderly people to exercise those rights. A study by Satarić, Mihić, Todorović and Satarić of 2013 argues that the elderly people will continue to be disadvantaged by the changes (of 2011) to the law regulating cash benefits within the social welfare sector. In 2012, only 35,501 elderly people received social welfare benefits (RZSZ, 2013: 72) despite their above-average risk of poverty rate of 20.6% (Vlada RS, 2012: 84). Additionally, about 77,000 pensioners (RFPIO, 2013) effectuated the right to allowance for support and care by another person.

Palliative care and developing capacities in this sector have just started and so far only a small number of elderly people have access. More than 40% of health care centres do not offer services for home treatment and care (Vlada RS, 2011), instead, the activities of these services are performed as part of the general health protection services. The exception is Belgrade, with its Institute for Gerontology and Palliative Care as an institution specialised in home treatment and palliative care. “There is a directive that between 10% and 15% of all hospital beds must be available for older patients and end-of-life care, but only for a maximum of 30 days” (Kolin, 2011: 156). Data about insufficient number of employees along with an insufficient number of beds also point to unavailability of these services.

Despite almost universal coverage of the population in Serbia with health care, there are indications that even the right to health care is jeopardised in elderly people, first of all, in rural areas.²⁸

4.2.2 Quality and performance indicators

The quality of health services has been monitored and measured for a longer period, while the standards for social welfare services have been just finalised. Quality and performance indicators show mixed results. Research into quality of public health care services conducted by the Institute for Public Health of 2012 shows (continuous) above-average satisfaction of elderly people (IJZ, 2013a), probably because of their lower expectations from the health care system. Specific quality indicators of health care of elderly people in the national context relate to: 1) waiting period for the commission in charge of evaluating the need for home care; 2) number of patients with bedsores; 3) percentage of patients for whom the assessment of pain based on a scale (from 1 to 10) was done at the moment of commencement of palliative care (IJZ, 2012: 61).

The quality of services offered by the private welfare sector has been out of scope of monitoring since its inspection has not been done transparently enough. An analysis of private homes conducted by the Provincial Institute for Social Welfare highlights a shortage of social workers in them and limited scope of their work (mainly concentrated on socio-anamnestic activities and making files of beneficiaries) (PZSZ, 2009: 5). The Ombudsman’s Report of 2011 points that even the medical component in private homes for elderly people is neglected (frequent absence of medical histories, etc.), as well as that in many cases a consent of an

²⁷ Data on the number of users of public kitchens differ to a large extent, depending on the source (Centres for Social Work, the Red Cross, social welfare facilities), and furthermore none of the current databases offers the differentiation of users per age. The number of elderly people using services of the civil society is also not known precisely, but is estimated at app. 27,000 (Kolin, 2011: 165).

²⁸ See more in the subtitle 3.2.1 of this Report.

elderly person to accommodation into residential care is absent (Zaštitnik građana RS, 2011: 4).

Quality control is not sufficiently present even in the public homes for elderly people and the reasons for that are, among other, underdeveloped inspection system and insufficient number of social welfare inspectors. The main shortages, as suggested by available reports, range from frequent “overpopulation”²⁹ and bad hygiene, to inadequate number of employees (first of all carers, nurses and social workers) and increasingly “medical” profile of homes, in terms of prominent health needs of beneficiaries due to their very old age (Zaštitnik građana RS, 2011: 4). Additionally, 15.6% of beneficiaries of public homes are people below 65 years of life (RZSZ, 2013: 56).

4.2.3 Sustainability

Sustainability of long-term care provision can be estimated as the most underdeveloped objective in the national context (Kozarčanin, 2008: 82). The *Memorandum on the Budget with projections until 2013* does not provide disaggregated costs for LTC within the general projection of expenditures for the health care and social welfare systems, making impossible to achieve insight into the planned trends of these expenditures (Vlada RS, 2010). Public expenditures for LTC are roughly estimated at 0.55% GDP (with 0.37% of that for cash benefits) (Matković, 2012: 16). Not surprisingly, the amount of cash benefits is low – for example, increased cash welfare benefit amounts to about EUR 78, which is below the poverty line and below half of the minimal wage.³⁰

Along with the division of policies and expenditures between the social welfare and health care schemes, realistic estimations of funds invested into LTC are hard to present given private payments for certain services and informal labour of female family members. The costs of families for LTC are underestimated, even though they have been probably increased during the crisis, since they cannot be always expressed in terms of money. Additionally, indirect costs of the society in regard of that, are also underestimated. Private payments for LTC, as supplementary to the system, do not present a long-term sustainable option, due to low purchasing power of the population. Data on household consumption show that the share of health costs is significantly higher in households of members over 65 years of life.

4.2.4 Summary

The main weaknesses of LTC are: 1) there is no autonomous LTC policy and LTC care is divided between the different schemes; 2) lack of incorporation of LTC aspects into all public policies; 3) disbalance between the strategic documents and their implementation; 4) financial constraints; 5) inadequate data and projections regarding LTC needs (demographic, health,³¹ social, financial); 6) relatively poor access and quality; 7) families do not have adequate support by the state.

The main strengths of LTC are: 1) there exist elements of LTC; 2) on-going work on increasing the variety of service providers; 3) on-going work on improving services and their variety.

²⁹ Additionally, almost all public homes are of the capacities over 100 beneficiaries.

³⁰ In September 2013, the minimal wage amounted to app. EUR 180 and the increased cash welfare benefit amounted to app. EUR 78 (MRZSP, 2013). Contrary to that, the amount of allowance for support and care by another person in the system of old-age and disability insurance scheme amounted to app. EUR 140 (RFPIO, 2013).

³¹ For example, there are only rough estimations of the number of people in Serbia having Alzheimer disease at about 100,000 in 2013 (Alchajmer grupa, 2013).

4.3 Reform debates

National strategic documents related to ageing, poverty, LTC elements in social welfare and health care systems³² show the recognition of the challenges relating to LTC by the Government. Furthermore, they are consistent, to a certain extent, with the objectives of European policies, in terms of striving to realise an accessible, quality and financially sustainable LTC. More precisely, the Council for Ageing and Old-Age of the Serbian Government identified numerous problems regarding the current concept of LTC in Serbia and most notably in terms of providing funds for the implementation of a more organised integration of health and social welfare sectors into a single LTC concept and policy programme. However, the practice evidence only formal, and not essential orientation of the Government towards the mentioned objectives, with the absence of an integral model of social and health care as the most obvious example as well as consequent absence of LTC specific funds.

There are indications that the cooperation between the social welfare and health care sector is recognised and even realised at the level of local communities. „For example, one of the reports on the development of services on the local level point to good communication between the health care and social welfare facilities regarding services for elderly people in municipalities and cities [...] Local communities recognise the limitations which are not only the result of an inadequate cooperation between the sectors, but of absence of a communication between the central and local governments“ (Matković, 2012: 10). Some identified challenges by local communities are the necessity to empower the families of elderly people along with developing community services.

National experts have been moving their focus on LTC only recently, arguing for the need to better research the area and pointing to demographic challenge in the national context. The integral model of LTC is seen by many of them as a more favourable solution, compared to the existing division of responsibilities between the social welfare and health care schemes.

³² *The Poverty Reduction Strategy Paper of 2003, The Social Welfare Development Strategy of 2005, The National Strategy on Ageing of 2006, The Strategy on Palliative Care of 2009.*

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Annex – Key publications

[Pensions]

RAKONJAC-ANTIĆ, Tatjana, RAJIĆ, Vesna, LONČAR, Dragan, *The Role of Pension Schemes in the Development of Pension Insurance Market in Serbia*, Journal for Theory and Practice Management, Vol. 67(2013), pp. 5-14.

Voluntary pension insurance is only beginning to develop in Serbia and the authors identify the problems and propose solutions for their more intensive use. In addition to the descriptions of particular facts, they present theoretical and practical views on pension schemes. Through an overview of the history and data comparison, the article analyses the share of pension schemes in Serbia.

RAJIĆ, Vesna, KOČOVIĆ, Jelena, LONČAR, Dragan, RAKONJAC-ANTIĆ, Tatjana, *Testing population variance in case of one sample and the difference of variances in case of two samples: Example of wage and pension data sets in Serbia*, Economic Modelling, May 2012, Vol. 29(3), pp. 610-613.

The authors test one population variance and the difference in variances of two populations based on the ordinary t-statistics combined with the bootstrap method. Suggested techniques are combined with Hall's transformation approach. Application of presented methods in domain of real economic data set is described and analysed. The authors compare the outputs of suggested methods and traditional methods for considered data set. The results show that these introduced methods have small advantages in comparisons with traditional methods especially for small samples.

ZDRAVKOVIĆ, Aleksandar, DOMAZET, Ivana, NIKITOVIĆ, Vladimir, *Uticaj demografskog starenja na održivost javnih finansija u Srbiji*, Stanovništvo 1/2012, pp.19-44. *“Impact of Demographic Ageing on Sustainability of Public Finance in Serbia”*

The authors analyse the impact of demographic ageing on pension system in the context of sustainability of public finance in Serbia in the period 2010-2050. The objective of the analysis was projecting long-term pension expenditure as a share of GDP. The results indicate that the growth rate of pension expenditure over the past few years is unsustainable in the long run. However, there is fiscal space for continuous real growth of pensions that does not jeopardise the budget deficit on the medium term, and leads to long-term reduction of the share of pension expenditures in GDP. Critical review of the current government approach to the pension growth dynamics was given from the perspective of medium-term sustainability of pension system, which resulted in appropriate recommendations.

[Health care]

INSTITUT ZA JAVNO ZDRAVLJE, *Analiza zadovoljstva korisnika zdravstvenom zaštitom u državnim zdravstvenim ustanovama Republike Srbije 2012. godine*, Institut za javno zdravlje, Beograd, 2013.

“Survey of the Most Important Results of Researching Satisfaction of Beneficiaries in the Public Health Institutions of the Republic of Serbia in 2012”

The survey was conducted at the levels of primary, secondary and tertiary health care at the end of 2012. At the level of primary care, the satisfaction of beneficiaries was 3.96 out of 5 and it is the lowest value for the last four years. Except for longer waiting period on medical check-ups, individual variables show even a discrete improvement or unchanged status compared to previous years. At the levels of secondary and tertiary care, the satisfaction of beneficiaries of 3.92 was negligibly lower compared to the primary care and last year results. Differences in the satisfaction of beneficiaries between the regions were no significant, contrary to differences between the districts of the country.

INSTITUT ZA JAVNO ZDRAVLJE, *Analiza ispitivanja zadovoljstva zaposlenih u državnim zdravstvenim ustanovama Republike Srbije 2012. godine*, Institut za javno zdravlje, Beograd, 2013.

“Survey of the Most Important Results of Researching Satisfaction of Employed in the Public Health Institutions of the Republic of Serbia in 2012”

Annual reports on satisfaction of employees in the public health institutions, along with the reports on satisfaction of beneficiaries, are a part of a package of measures aimed at improving health care quality. The survey was carried out at the end of 2012, on a sample of 66,549 employees, of which 77.1% are health workers. Less than half of the respondents are satisfied with the work they do, which is a drop compared to the year before. There are important differences in satisfaction based on education level, type of institution, and the amount of monthly income. The effects of continuing education are less positively evaluated compared to the previous year.

MILENKOVIĆ, Dejan, JOVANOVIĆ MILENKOVIĆ, Marina, VUJIN, Vladimir, ALEKSIĆ, Aca, RADOJIČIĆ, Zoran, *Electronic Health System – Development and Implementation into the Health System of the Republic of Serbia*, Vojnosanitetski pregled, 2012, 69(10), pp. 880-890.

The subject of the analysis of the authors is the e-health system in general and especially electronic healthcare documentation, electronic medical documentation, electronic patient records and electronic health smart card. It is followed by its cost-benefit analysis. The authors are of the opinion that e-health system provides a foundation for a new approach to organising and carrying out business processes in health care system supported by information and communication technologies. The main features of the new approach are orientation to a patient, health care based on evidence, exchange of information about the health of a patient in order to improve health services and reduce costs. Its implementation in the national context would increase the capacity of collection, storage, copying, transmission, sharing and manipulation of information.

JOVIĆ-VRANEŠ, Aleksandra, BJEGOVIĆ-MIKANOVIĆ, Vesna, *Which women patients have better health literacy in Serbia?* Patient Education and Counseling, Oct. 2012, Vol. 89(1), pp. 209-212.

The objective of the research was to evaluate health literacy among female primary care patients and the possible factors which contribute to better health literacy. The authors conducted a cross-sectional study among 824 female primary health care patients and found that inadequate or marginal health literacy was present in 363 participants (44.1%) and adequate health literacy was present in 461 participants (55.9%). Functional health literacy was significantly different based on age, marital status, employment, education, material

status, self-perception of health and health status. The authors found out that better health literacy existed among younger, employed participants with a higher education and better self-perception of health.

GAZIBARA, Tatjana, KISIĆ-TEPAVČEVIĆ, Darija, DOTLIĆ, Jelena, MATEJIĆ, Bojana, GRGUREVIĆ, Anita, PEKMEZOVIĆ, Tatjana, *Patterns of Infant Mortality from 1993 to 2007 in Belgrade (Serbia)*, Maternal & Child Health Journal, May 2013, Vol. 17(4), pp. 624-631.

The national population has been exposed to radical changes in the living standards, employment status and inequalities in utilisation of health care services. Given that infant mortality rates (IMR) reflect general community health, the authors evaluated the trends and mortality structure of Belgrade's infant population for a 15-year period (1993-2007). The average IMR was 11.3 per 1,000 live births for both sexes with a higher average rate observed for male infants. Throughout the whole period, a statistically significant declining trend was noted. The most common causes of death were conditions occurring during the peri-natal period. Despite declined infant mortality in Belgrade, further promotion of health-related activities, as well as continuous surveillance of IMR, is required.

ARSENIJEVIĆ, Jelena, PAVLOVA, Milena, GROOT, Wim, *Measuring the catastrophic and impoverishing effect of household health care spending in Serbia*, Social Science & Medicine, Feb 2013, Vol. 78(2013), pp. 17-25.

The authors examine the effects of health care spending in Serbia applying different types of thresholds. The application of various approaches allowed them to analyse the robustness and convergent validity of the results. The authors also included the subjective poverty approach in the examination. The findings indicated that irrespective of the approach applied, out-of-pocket patient payments have a catastrophic effect on poor households in Serbia. Moreover, households that are above the absolute, relative and subjective poverty lines respectively, after the subtraction of out-of-pocket payments fall below these poverty lines. The probability of catastrophic out-of-pocket patient payments is higher in rural areas, in larger households, and among chronically sick household members. Policy in Serbia should aim to protect vulnerable groups, especially chronically sick patients and people from rural areas.

JANEVIĆ, Teresa, JANKOVIĆ, Janko, Bradley, E. *Socioeconomic position, gender, and inequalities in self-rated health between Roma and non-Roma in Serbia*, International Journal of Public Health, Feb 2012, Vol. 57(1), pp. 49-55.

The objective of the study was to examine differences in self-rated health (SRH) between Roma and non-Roma in Serbia. The research showed that, adjusted for age, Roma were more than twice as likely as non-Roma to report poor SRH. The Roma women, regardless of whether they were living in poverty or not, experienced the greatest risk of poor SRH, with risks relative to non-Roma males not in poverty of 3.2 and 3.1 respectively. The authors concluded that the Roma in Serbia are at increased risk of poor SRH and the Roma women experience the greatest burden of poor SRH.

JANKOVIĆ, Janko, SIMIĆ, Snežana, *Povezanost demografskih i socijalno-ekonomskih determinant sa samoprocenom zdravlja*, Srpski arhiv za celokupno lekarstvo, Jan-Feb 2012; Vol. 140(1-2), pp. 77-83.

"The association of demographic and socioeconomic determinants and self-perceived health"

The authors analyse the association between the demographic (gender, age, marital status and type of settlement) and socioeconomic determinants of health (education and Wealth Index), and self-perceived health. They conclude that the elderly and females significantly more often perceived their health as poor. Respondents living in rural settings were less likely to perceive their health as poor compared to those living in urban settings. Males with low education were three times more likely to perceive their health as poor in relation to males with high education. This association was more pronounced in females.

KONSTANTINOVIĆ, Dejan, LAZAREVIĆ, Vesna, MILOVANOVIĆ, Valentina, LAPČEVIĆ, Mirjana, KONSTANTINOVIĆ, Vladan, VUKOVIĆ, Mira, *Finansijska održivost kućnog lečenja u zdravstvenom sistemu Republike Srbije*, Srpski arhiv za celokupno lekarstvo, Mar-Apr 2013, Vol. 141(3-4), pp. 214-218.

"Financial sustainability of home care in the health system of the Republic of Serbia"

The authors argue that over the last several years, during the economic crisis, the Ministry of Health and the Republic Health Insurance Fund (RHIF) have been faced with new challenges in the sphere of health care services financing both in the primary as well as other types of health insurance. Their objective was to analyse cost-effectiveness of two models of organisation of home treatment and health care in the primary care, with evaluation of the cost sustainability of a single visit by the in-home therapy team. The results showed that the cost of home health care and therapy of the heterogeneous population of patients in the Health Care Centre "New Belgrade" was more cost-effective in relation to the cost of providing home therapy services according to the official national norms.

MIHIĆ, Marko, OBRADOVIĆ, Vladimir, TODOROVIĆ, Marija, PETROVIĆ, Dejan, *Analysis of implementation of the strategic management concept in the health care system of Serbia*, HealthMed. 2012, Vol. 6(10), pp. 3448-3457.

The objective of the authors was to assess the current state of strategic management in health care organisations in Serbia and suggest an appropriate model to facilitate and improve this process. The survey consisted of 20 questions selected after conducting interviews with the focus groups and performing an analysis of the current trends in implementation of strategic management in the health care institutions across the world. A total of 43 institutions were surveyed. The general hypothesis that health care organisations in Serbia use strategic analysis methods in order to set objectives and identify initiatives was confirmed, however, the monitoring and control of strategy implementation are not undertaken in a way that is founded in theory and empirically confirmed. The authors concluded that strategic management constitutes a critical factor of success of these institutions in Serbia.

GAJOVIĆ, Gordana, KOCIĆ, Sanja, RADOVANOVIĆ, Snežana, ILIĆ, Biljana, MILOSAVLJEVIĆ, Mirjana, RADEVIĆ, Svetlana, IGNJATOVIĆ, Dragana, *Satisfaction of users in primary health care*, HealthMed, 2012, Vol. 6 (12), pp. 4185-4193.

The objective of the study was to determine the degree of satisfaction of patients with primary health care and factors that influence the overall satisfaction of health care. The authors found the strongest correlation between the time spent waiting for medical examination and the time a physician devotes to the patient. As the patients spend less time waiting to be examined, there is more time for a doctor to pay attention to the patient in further contact. Further, the more time devoted to patient, makes his assessment of the competence of doctors to be better. Assessment of non-medical characteristics of doctors by patients also significantly correlated with the assessment of competence. More time devoted to patient makes the assessment of

non-medical characteristics of doctors more positive. More information given to the patient positively correlated with grade of expertise of doctors.

DICKOV, Veselin, *Inadequacy the Health System in Serbia and Corrupt Institutions*, Mater Sociomed, 2012, Vol. 24 (4), pp. 262-267.

The author describes corruption in the Serbian health care system in terms of offering money or gifts to medical professionals by patients, or being asked to provide them, in order to either gain access to certain medical services beyond the formal procedures or to access them more quickly, reducing thereby the waiting period. Further source of corruption was found in insufficiently differentiated relationship between public health and private practice. Patients are often redirected by a physician in the public practice to their own private practice, or to someone that he or she cooperates with. The author suggests guidelines for combating corruption (renewal of outdated technology, provision of permanent education and training of physicians, increased transparency of waiting lists, introduction of more precise legal requirements, etc).

ARSENIJEVIĆ, Jelena, PAVLOVA, Milena, GROOT, Wim, *Out-of-pocket payments for Public Health Care Services by Selected Exempted Groups in Serbia during the Period of Post-War Health Care Reforms*, International Journal of Health Planning and Management, Jun. 2013, Vol. 20, PMID: 23788401

The paper is focused on groups in the society exempted from paying co-payments in the health care system (people over 65 years of life, younger than 15 years of life, unemployed, persons with disabilities, low-income persons). Despite the legal proclamations, the authors found that the members of the mentioned groups reported different types of out-of-pocket payments for outpatient and inpatient hospital care. Therefore, they conclude that the implementation of the exemption mechanism fails to protect the targeted groups and future exemption mechanisms should be pro-poor oriented but should also exempt those whose health status requires a frequent healthcare use.

SANTRIĆ-MILIĆEVIĆ, Milena, VASIĆ, Vladimir, MARINKOVIĆ, Jelena, *Physician and Nurse Supply in Serbia Using Time-Series Data*, Human Resources for Health, Aug. 2013, Vol. 11 (1), PMID: 23773678.

Rising unemployment among health professionals in Serbia is the motive of this paper. The paper identifies variables that were significantly related to physician and nurse employment rates in the public healthcare sector in Serbia from 1961 to 2008 and used these to develop parameters to model physician and nurse supply in the public healthcare sector through to 2015. The authors argue that the supply of physicians and nurses in the public sector will be stable by the studied period and argue in favour of inter-sectoral strategy for human resources development that is more coherent with healthcare objectives and more accountable in terms of professional mobility.

JANKOVIĆ, Janko, JANEVIĆ, Teresa, von dem KNESEBECK, Olaf, *Socio-economic Inequalities, Health Damaging Behaviour, and Self-Perceived Health in Serbia: a Cross-Sectional Study*, Croatian Medical Journal, Jun. 2012, Vol. 53 (3), pp. 254-262.

The authors examine associations between demographic factors (age, sex, marital status, and type of settlement), socioeconomic factors (education, employment status, and household

consumption tertiles), and health behavior variables (smoking, alcohol consumption) and self-perceived health were examined using logistic regression analyses. The study shows inequalities in self-perceived health by socioeconomic position, in particular educational and employment status. The conclusion is that the reduction of such inequalities through wisely tailored interventions that benefit people's health should be a target of the national health policy.

ANDELSKI, Hristo, TIMOTIĆ, Branivoje, *Systems for the Provision of Oral Health Care in the Black Sea Countries, part 11: Serbia*, Oral Health and Dental Management, Jun. 2012, Vol. 11 (2), pp. 51-56.

This paper starts with the provision of health care in Serbia, to go to the details of the system for the provision of oral health care, the education of dentists and dental staff, epidemiological data, and costs. It includes details of the public and private sectors of health and dental care in Serbia. Private health and oral health care is based mainly on a number of practices that provide medical and dental care to the population. The state sector has a wider range of types of provision, including complex health care institutions. The number of employees in the private health and dental sector is much smaller than the number of employees in the public sector. Far fewer patients seek private medical and dental care than visit a doctor and dentist in the state sector.

SIMIĆ, Snežana, MARINKOVIĆ, Jelena and BOULTON, George, Primary Health Care Reform in Serbia: Driven by Whom? In: Bartlett, Will Bozikov, Jadranka, Rechel, Bernd (eds.), *Health Reforms in South-East Europe*, 2012, Palgrave: Basingstoke, pp. 105-129.

The authors start with the presentation of primary health care in Serbia in the historical context. The 2000s are especially emphasised both from the point of view of the description of primary health care facilities and indicators of coverage with primary health care services and their quality. The presentation of strategic aims of reforms along with the legislative changes is followed by the analysis of the role of international actors (EU, the World Bank, UNICEF, WHO) in the reforms. The assessment of the reforms by the authors stresses that they have become to yield positive results, with systemic shortages still in terms of neglected preventive approach (contrary to the curative one), lack of integration and coordination between the primary, secondary and tertiary levels of care and different health agencies. Low expenditures and financial sustainability have remained unsolved challenges.

JEKIĆ, Ivan M., KATRAVA, Annette, BOULTON, George, KOUMPIS, Nicolas, OBROVAČKI, Miroslav, MILOJKOVIĆ Aleksandar, Hospital Infrastructure Development in Serbia: Modernizing the Four University Clinical Centres. In: Bartlett, Will Bozikov, Jadranka, Rechel, Bernd (eds.), *Health Reforms in South-East Europe*, 2012, Palgrave: Basingstoke, pp. 160-178.

The focus of the research are four clinical centres, while the starting assumption is that the national hospital infrastructure is over-dimensioned, inefficient and expensive and therefore it calls for fundamental reforms. However, the reforms of the clinical centres would probably result in changes in the whole national health system, due to their prominent role and influence in the national context. Quantitative indicators of their performance should be replaced by the contemporary ones, e.g. the concept of patient flows. The conclusions of the

paper are threefold: the improvement in health care delivery has to start as soon as possible and continue after the opening of new facilities; modernization process should achieve short, medium and long-term objectives; and monitoring and reporting should be strengthened.

[Long term care]

SATARIĆ, Nadežda, MIHIĆ, Marko, TODOROVIĆ, Marija, SATARIĆ, Vlade, *Analiza primene Zakona o socijalnoj zaštiti u delu novčanih socijalnih pomoći i cost benefit analiza servisa pomoć u kući za stara lica*, 2013, Amity, Beograd.

“An Analysis of the Implementation of the Law on Social Welfare in its Part regulating Cash Welfare Benefits and Cost-Benefit Analysis of Home-Based Assistance to Elderly People”

The objective of the study, which was realised in the period April-December 2012, was to establish whether the Law on Social Welfare acknowledges the elderly people and their specific needs and to what extent. A special focus was on the cash welfare benefits and home-based assistance for the elderly people, with a view to determining their compliance with the actual needs. The conclusions of the study point to the need to: widen the access to the cash welfare benefits for the elderly people, acknowledge them as especially vulnerable group in the legislation, provide sustainability of home-based assistance programme, educate further professionals dealing with the material support to the elderly people regarding the implementation of the Law, harmonise data on the elderly people gathered by different services, etc.

SATARIĆ, Nadežda, *Kvalitativno istraživanje – dugotrajna nega starijih u Srbiji*, 2013, Tim za socijalno uključivanje i smanjenje siromaštva & Amity, Beograd.

“Qualitative Research – Long-Term Care of Elderly in Serbia”

Long-term care of elderly people, and especially palliative care, is given the central place in the study examining four groups of elderly people: those on residential care, users of community based services, recipients of allowance for support and care by another person and elderly people who do not use any of the mentioned services / benefits. The findings of the study are that those elderly people in need of support in their everyday functioning see residential care as the last resort solution but give advantage to support services in the community. They value active ageing to a high extent, as well as the improvement of solidarity between the young and elderly and relations within the family. They are of the opinion that the current situation can be improved through rapid development of currently existing services, including volunteer activities, as well as better and more information for the elderly people.

SAUER, Michael, *Poređenje režima dugotrajne zaštite – studija slučaja Srbije*, in: D. Vuković, N. Perišić (eds.) *Rizici i izazovi socijalni reformi* (p. 79-95), Univerzitet u Beogradu – Fakultet političkih nauka, Beograd.

“Long-Term Care Regimes in Comparison – the Case of Serbia”

The author starts with the analysis of the demographic trends in Serbia: the population ageing and their shrinking, growing rate of the elderly people and fertility decreasing. Besides the specific characteristics and challenges – e.g. fragmentation between the health system and the social welfare system, the lack of institutionalised supply, the underdevelopment of the private sector, the dominant role of the family for the provision of the care for the elderly

people – the provision of long-term care in Serbia is subject to comparable problems as in the developed welfare states. Moreover, the author finds useful to classify Serbia's long-term care concept into the context of Southern European transformation countries. The recommendations for its development range from an approach to devolution, decentralisation and de-institutionalisation to improved cooperation between all stakeholders.

MATKOVIĆ, Gordana, *Dugotrajna nega starih u Srbiji – stanje, politike i dileme*, Stanovništvo, 1/2012 (1-18).

“Long-Term Care of Elderly in Serbia – situation, policies and dilemmas”

The author explores the links between the fragmented long-term care concept in Serbia, and presents different estimates of the number of elderly people in need of long-term care. Research shows that 62,000 elderly people (5%) receive allowance for support and care by another person; 9,000 are accommodated in institutions (0.7%), while 11,700 (1%) receive some type of support through home care community based services. In addition, in Belgrade there are also 2,000 elderly people who are beneficiaries of medical and palliative care at home. The Government expenditures for these purposes are roughly estimated at 0.55% of GDP, largely for cash benefits (0.37%). Since the Government expenditures on long-term care will inevitably increase significantly, the author argues for the preparation of a comprehensive and fiscally responsible response.

PERIŠIĆ, Natalija, *Dugotrajna zaštita starih u sistemu socijalne sigurnosti Srbije*, Godišnjak Fakulteta političkih nauka 9/2013 (156-175).

“Long-Term Care of Elderly People within the Social Protection System in Serbia”

The author analyses elements of long-term care in Serbia within the systems of health care and social welfare, and points that a part of the public policy deals with long-term care needs implicitly relies on the support of families, i.e. different forms of informal help. Existing and projected demographic trends, social situation, as well as health conditions in elderly, require an integrative approach to long-term care and point to various challenges of the current concept. They equally refer to the accessibility and quality as well as financial sustainability of long-term care programmes and measures. The main problems rest within the spheres of inadequate coverage of elderly with institutional and out-of-institutional programmes, with disputed quality of certain measures and limited finances. Observed shortages of the current concept of long-term care in Serbia require the creation of direct connections among all stakeholders, along with adequate balancing between the public and private sectors, institutional and out-of-institutional programmes, cash benefits and in-kind benefits and services, Republic and local competencies.

ŠEVO, Goran, TASIĆ, Marija (eds.), *Gerontologija u Srbiji*, Gradski zavod za gerontologiju i palijativno zbrinjavanje, Fondacija „Solidrnost“, Gerontološko društvo Srbije, Beograd, 2013.

“Gerontology in Serbia”

The book is a compendium of chapters on important aspects of the development of gerontology in Serbia. They cover the topics of an emergence of a gerontology as a scientific discipline in the national context, care about the elderly people before the II World War, the position of the Serbian Gerontological Society in the field of the development of gerontology, geriatric aspects of hospital care, the functions and characteristics of the Institute for Chronic Diseases and Gerontology and the Institute for Gerontology and Palliative Care, social

protection of the elderly people, residential care and geriatric section of the Serbian Medical Society.

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