Health System Expenditure Review

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Health System Expenditure Review

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List of abbreviations

CHI  Complementary health insurance
GDP  Gross Domestic Product
EU   European Union
HIIS Health Insurance Institute of Slovenia
IMAD Institute of Economic Research
NHA  National Health Accounts
NIPH National Institute of Public Health
OECD Organisation for Economic Cooperation and Development
PPP  Purchasing Power Parity
SHI  Social Health Insurance
UHC  Universal health coverage
VAT  Value Added Tax
WHO-HFA World Health Organization Health-for-All Database
Key findings

The key finding of the Expenditure Review is that health sector revenues are very susceptible to labour market fluctuations. With nearly three quarters of HIIS revenues coming from employee contributions, it comes as no surprise that as employment levels and gross wages decreased during the economic crisis, so too did resources for health. Macroeconomic forecasts indicate that the labour market will not return to pre-crisis levels in the near term, which implies that the health sector will continue to face financial pressures going forward. The aging population exacerbates the problem, since pensioner contributions to HIIS are significantly lower than average contributions from the employed.

Therefore, it is recommended that diversification of HIIS revenues be made a priority and that counter cyclical financing mechanisms be put in place so that there is some regularity to health system resources. Without steady, reliable revenue streams, it is difficult for both HIIS and providers to plan budgets beyond 6 months to 1 year and ensure access to quality health care. Nearly all other health systems in Europe, including those traditionally thought of as social health insurance systems (e.g. France, Lithuania, Czech Republic, etc.) receive significant funding from general tax revenues. Given that HIIS is unable to engage in deficit spending, HIIS is repeatedly put in a position whereby it must either alter prices to be in line with its available funding and pre-contracted volumes, or delay payments to providers until funds are available. While price reductions could be appropriate (see Report: Purchasing and Payment Review) delaying payments until funds are available is not.

A second key finding is regarding the complementary health insurance (CHI) sector (see also separate Report, Making Sense of Complementary Health Insurance). While there are a number of unappealing characteristics of CHI (e.g. high administrative costs compared to HIIS, private profits) it has also served an important function during the economic crisis. Without CHI, costs would likely have been shifted onto households in the form of out of pocket payments, which would have led to deteriorations in access to health services and lack of financial protection. Efforts to replace CHI should only be made after the Ministry of Health can successfully generate the ~€400 million needed to offset the loss of CHI. The Ministry of Health may consider focusing the majority of its attention on better revenue generation; if these efforts are successful, it would be feasible to slowly reduce co-insurance rates to the point that CHI is no longer required. This approach would be less disruptive than replacing CHI all at once.

Lastly, the review finds that HIIS pays for a number of budget items that are unfunded, including specialization training. This represents a significant cost, comparable to the total operating costs and profits of CHI, and could be shifted back to Central government budgets.
Introduction

Since the onset of the financial crisis, Slovenia has taken strides to improve the sustainability of its health system by implementing measures to generate additional revenues and reduce expenditures. Efforts over the last five years have included increasing contributions for the self-employed, requiring contributions from student employers, restricting entitlement to free services, increasing coinsurance rates, and reducing prices of medicines and health services.

Following an in-depth review of macroeconomic conditions in Slovenia in 2014, the Council of the European Union issued a Country-Specific Recommendation (CSR) urging the government to take steps to address its excessive public deficit. To this end, the Council called for a comprehensive review of health expenditure to support fiscal consolidation. This recommendation comes despite the fact that the Health Insurance Institute of Slovenia (HIIS) – the primary financier of health care in Slovenia – cannot itself contribute to public debt. Since 2004 when the public treasury bailed out the health insurance fund, HIIS has been funded almost exclusively through the yearly contributions of its members, and unlike other areas of the public sector, is prohibited from recording annual losses. Nevertheless, given the financial pressures associated with the rising costs of health care and an ageing population, a review of revenues and expenditures in the Slovenian health sector is an important and timely exercise.

The following health expenditure review provides actionable evidence on how resources for health are generated and spent to assist the Slovenian government in identifying and implementing reforms so that the health system achieves better value for money and can secure long-term sustainability. The review provides a detailed assessment of current funding levels, resource allocations, trends and projections to support an overarching evaluation of the performance of health system resources.

Overall, the review finds that the recent economic crisis led to significant reductions in contributions to HIIS due to rising unemployment and slower wage growth. Despite fewer resources for health, the volume of goods and services paid for by HIIS did not commensurately decrease; rather, reductions in HIIS revenues were dealt with by reducing the prices paid for care, shifting costs onto complementary health insurers and delaying reimbursement to providers. As a result, reductions to HIIS revenues have arguably most adversely affected providers, leading some public providers to incur financial losses and a small number of public hospitals to require financial assistance from the Ministry of Finance. Complementary health insurance has served an important role throughout the crisis, both by protecting households from incurring high coinsurance payments, as well as to a limited extent, by partially subsidizing the provision of services, as private insurers pay providers for the coinsurance portion of services rendered even after HIIS contracted volumes have been met for the year. Going forward, the health system will face increasing pressure to meet the needs of an ageing population with fewer active contributors to the HIIS; alternative revenue sources are needed.
that ensure the stability of health care funding so that quality health care services continue to be delivered.

The review begins by describing the macro-economic context in Slovenia. Next, the review discusses trends in revenue generation and expenditures. This is followed by a review of some of the key approaches that have been taken in recent years to reduce expenditures. The next sections discuss how changes in spending have affected particular areas of the health sector, including hospitals, pharmaceuticals, and long-term care; labour and capital expenditures are also covered in depth. Lastly, expectations of future revenues and expenditures in the context of an ageing population are discussed. The report concludes with overall findings.

Background: macro-economic context

Slovenia was severely affected by an extended economic crisis

In the early 2000s, Slovenia experienced robust economic growth fuelled by accession to the European Union in 2004 and easy access to credit. Between 2000 and 2008, real GDP increased at an average annual rate of 4.2%, which was well above the average across the EU (Figure 1). In 2008, GDP per capita was 18,769 EUR at current prices.

Fig. 1: Real GDP growth, Slovenia and EU-28

![Real GDP growth, Slovenia and EU-28](image)


However, this growth was in part driven by unsustainable debt accumulation by banks and the corporate sector. Along with most other countries in the EU, in 2009, Slovenia suffered a severe economic decline; real GDP shrunk by -7.8%, one of the largest declines in all of Europe in 2009.
and sharper than the average contraction across the EU-28 of -4.4%. Amongst EU countries, only Finland, Latvia, Lithuania and Estonia suffered larger declines in GDP in that year.

Slovenia experienced positive real GDP growth in 2010 (1.2%), though this rebound was modest and still below the EU average of 2.1%. However from the last quarter of 2011 and through 2013, the economy again contracted; real GDP grew by -2.6% and -1.0% in 2012 and 2013, respectively. The collapse in economic activity was so severe that GDP per capita in purchasing power standard declined from 89% of the EU average in 2008 to 82% of the EU average in 2013, on par with the level of development in Slovenia in 2002 prior to EU accession. Although this second economic contraction also occurred in many other EU countries as well, it was particularly strong in Slovenia. In 2012 for example, real GDP shrunk more only in Italy, Portugal and Greece. By 2014 Slovenia had returned to relatively strong positive export-driven economic growth, above the EU average, though still slower than the pre-crisis average.

**Unemployment has risen while wage growth has stagnated**

The economic crisis has had serious implications for the labour market, which is of particular importance because the health system is largely funded by payroll contributions. Based on Eurostat data, the unemployment rate has steadily increased since a low of 4.4% in 2008, reaching 10.1% in 2013 (Figure 2). This is well below the EU-28 average in all years, though since the beginning of the crisis, Slovenia’s official unemployment rate has been converging with that of the EU average. Notwithstanding the lack of international comparability, national data on the registered unemployed indicates an even higher unemployment rate, peaking at 13.1% in 2013 and holding steady in 2014. This corresponds with over 120 000 unemployed people, compared to just around half that number in 2008 (63 200). Many of the employed have been out of work for 12 months or more; as of 2014 Q4, 55.6% of the working age (15-74 years old) unemployed were considered as long-term unemployed – above the EU average of 49.8% (Eurostat - http://ec.europa.eu/Eurostat/web/gdp-and-beyond/quality-of-life/long-term-unemployment-rate).
Those who have remained employed have faced significantly lower wages since the crisis unfolded. Real growth in wages remained constant at the beginning of the crisis at over 2% annually, however gross wage growth per employee slowed considerably in 2011 and declined in 2012 and 2013 by -2.4% and -2.0%, respectively (Figure 3). Though wages stagnated in both the public and private sector, the effects were more substantial in the public sector, where wages increased substantially prior to the crisis.

Other data from the Statistical Office of the Republic of Slovenia monthly survey provide confirmatory evidence that average monthly earnings of legal persons have been growing more slowly in recent years, particularly in the later years of the crisis. While between 2005 and 2010 average annual growth in average monthly gross salaries was 5.3%, it was registered as 2.0% and 0.1% in 2011 and 2012, respectively.

**The economic crisis has had a detrimental effect on public finances**

Poor economic conditions, increased unemployment and reduced wages, together with banking sector recapitalisation costs, have had important implications for government finances. As a result of very strong economic growth, Slovenia was running a small annual public deficit leading up to the financial crisis; however its robust GDP growth enabled it to maintain its debt relative to GDP at consistent and relatively low levels; prior to the crisis and since joining the EU, Slovenia’s public debt to GDP was consistently below 30% (Figure 4). However, as the crisis took hold, the deficit increased from -1.4% of GDP (2008) to -5.9% of GDP (2009). This higher deficit level remained fairly constant over the next few years but due to lacklustre GDP growth, pushed debt up to around double pre-crisis levels. In 2013 the deficit increased substantially to 14.9% following a more than 3 billion EUR recapitalisation of the banks.

**Fig. 4: Debt to GDP ratio and deficit/surplus, Slovenia, 2003 - 2014**

![Debt to GDP ratio and deficit/surplus, Slovenia, 2003 - 2014](image)


As a result of the crisis and particularly due to the bank bailout of 2013, Slovenia had the 3rd largest increase in debt to GDP among countries in the EU between 2008 and 2014; debt to GDP increased by nearly 60 percentage points (Figure 5).
Understanding the public finance situation requires a close look at both public revenues and expenditures

The poor public finance situation of the last few years is a direct result of the pro-cyclical fiscal policy and significant decline in economic activity, which culminated in the 2013 bank bailout. Total government revenue as a share of GDP has increased since the beginning of the crisis from 42.1% in 2008 to 45.0% in 2014 (Figure 6). This is slightly below the government revenue share of GDP of the entire Euro area (16 countries), 46.6% in 2014; however, at first glance the increasing trend suggests that government revenue generation has not been adversely affected during the crisis. At the same time, the lower revenue share compared to the Euro area could also indicate that there is some room for additional revenue generation in Slovenia, though less so than in other countries such as Romania, Lithuania and Ireland whose revenues as a share of GDP are all below 35%. Total government expenditures as a share of GDP, which had been in line with revenues prior to the crisis, increased notably in 2009. While government expenditure as a share of GDP was 44.0% in 2008, this increased to 48.5% in 2009 and remained greater than revenues through 2014.
Looking at shares of GDP masks variation in both the levels and types of revenues and expenditures. First looking at revenues, if we focus on the differences between tax revenues (e.g. VAT) and social contributions (i.e. ESA2010 code D.61) we see a slightly more complex story (Figure 7). Although tax receipt growth declined substantially in 2009 coinciding with the large decline in GDP, it rebounded to some extent in 2010. On the other hand, growth in social contributions declined more slowly but steadily, as they closely followed trends in unemployment. This illustrates the importance of relying on multiple revenue streams so that the public sector is not susceptible to fluctuations that occur in one particular area.
Likewise, looking more closely at government expenditure, it becomes clearer that the divergence between revenues and expenditures in Figure 6 is largely due to the one time spike in expenditure growth in 2008 (Figure 8). This acceleration in government expenditure growth in 2008 was driven largely by the public sector salary reform that took hold in the second half of 2008. Aside from this one-time increase, expenditure growth was near 1.7% in 2010, 3.0% in 2011 and negative in 2012, before increasing drastically in 2013 as a result of the banking bailout.
To try and better understand the drivers of changes in public expenditure, we look next at the distribution of government spending over time (Figure 9). From 2008 to 2009, social protection experienced the largest increase in its share of total government expenditure (0.7 percentage points), followed by health (0.3 percentage points); however these changes were still fairly small, at less than a percentage point each, emphasizing that the spike in expenditure growth in 2009 occurred similarly across multiple sectors of government, as the public sector salary reform occurred across government. From 2004 through 2012, the health share of total government spending remained virtually unchanged at between 13.8 and 14.4%. The most notable change in the health share of government spending was in 2013, when health fell to 11.6%; this was due to the capitalization of banks, which increased economic affairs to 24.2% of general government expenditure. At this time between 2012 and 2013, the share of the government budget spent on social protection also declined by 7 percentage points for the same reason.
Fig. 9: Distribution of government expenditure, Slovenia, 2004-2013

Since at least 2006, the health portion of total government expenditure in Slovenia has been near the EU-28 average in all years; in 2012, Slovenia was the median country of the EU in terms of its health spending as a share of government spending (Figure 10). The health share of total government expenditure decreased to 11.6% in 2013 due to increased public expenditure to bail out the banks, placing Slovenia well below the EU-28 average of 14.8%.

Fig. 10: Health as a share of total government expenditure, 2012

Source: WHO, Global Health Expenditure Database
Revenues in the health sector

Total government revenue growth has been affected by declines in economic activity; however, government revenues as a share of GDP have continued to increase through the crisis. As shown in Figure 7, total government revenues have been somewhat resilient to the crisis because they come from a mix of different types of taxes and social contributions. Revenue generation in the Slovene health sector may be less reliable in times of crisis, however, because the health sector depends primarily on social insurance contributions. In this section, we will explore recent trends in revenue generation for both the HIIS and complementary health insurance (CHI) sectors.

**HIIS revenue growth has slowed dramatically since 2008 because of lower social security contributions**

Although all Slovenians are covered for compulsory health insurance through the HIIS, there has been a marked slowdown in HIIS revenues since the crisis began (Figure 11). While between 2007 and 2008 HIIS revenues increased by 10.3% as a result of public sector wage reform and high levels of employment, revenue growth in 2009 slowed to 2.2%. Revenues declined in 2012 and 2013 by -0.9% and -1.3%, respectively, before returning to positive growth (3.4%) by 2014 that remained below pre-crisis annual rates of increase.

**Fig. 11: HIIS revenue levels and growth rates, Slovenia, 2004-2014**

Social security contributions make up the vast majority of HIIS revenues. Consistent with aggregate trends for total HIIS revenues in Figure 11, growth in social security contributions to HIIS slowed dramatically at the beginning of the crisis and then subsequently continued to
decline, actually shrinking in 2012 and 2013 before returning to positive growth in 2014 (Figure 12). Growth in social security contributions closely mirrors trends in unemployment, as shown, and is exacerbated by declines in wages. The correlation between unemployment rates and growth in social security contributions to HIIS is strongly negative, -0.75, confirming that increases in the unemployment rate are associated with decreases in the rate of growth of HIIS social security contributions; this reflects the low level of budget transfers to HIIS on behalf of the unemployed.

**Fig. 12: Growth in HIIS revenues from social insurance contributions compared to unemployment rates and real growth in wages**

Despite most HIIS revenues coming from social security contributions, there has been a slight decline in the social security contribution share of total revenues since 2008. In 2008, social security contributions comprised 80.9% of total HIIS revenues (Figure 13); however this fell to 79.3% in 2011 (the lowest share since at least 2000) and by 2014 remained at 79.5%. The decline in social security contributions is driven in part by a fall in employer and employee contributions, which went from a high of 75.5% (2008) to a low of 71.5% (2013). At the same time, there were small increases in the share of revenues coming from the self-employed and other contributors.
Fig. 13: Percentage of total HIIS revenues from social security contributions, disaggregated by source, 2000 - 2014

Source: HIIS, 2015
Note: It is not advisable to further disaggregate the contributions from employers and employees, as there have been data inconsistencies beginning in 2011 when the Financial Administration of Republic of Slovenia (FURS) began using a new system of documenting the source of contributions.

Other revenues to HIIS come mostly from other general government institutions such as state and local budgets, as well as social security funds (e.g. Pension and Disability Insurance Fund), although a small amount comes from various non-tax sources, such as proceeds from sales of goods and services. There has been a slight increase in revenues transferred to HIIS from government institutions, which has compensated somewhat for declines in social security contributions. The increase has largely been due to transfers from social security funds and from the state budget. Transfers from the state budget have historically comprised a small share of HIIS revenues; for example, in 2008 the state budget contributed towards 1.0% of HIIS revenue; however, this share was more than doubled between 2010 and 2014. By 2014, the state budget was contributing 2.1% of revenues. This amounts to 0.13% of GDP in 2014 (it was only 0.06% of GDP in each year from 2004-2008). Overall, the increase in government transfers to HIIS was mainly due to increases in three types of revenues:

1) Revenues from employer health contributions related to unemployment benefits;
2) Transfers from the state budget for employer health insurance contributions for prisoners;
3) Payments to subsidize medical services for socially disadvantaged persons.
These increases resulted in other government institutions contributing slightly more to HIIS to protect some vulnerable groups in recent years, though the magnitude of this increase was quite small.

**Households are contributing less to HIIS since the crisis**

Although all households are covered for the same basket of services, contribution rates differ depending on household characteristics. To better understand the reasons behind the decline in social insurance contributions to HIIS, we next explore how the mix of contributions has changed as a result of the crisis.

Contribution rates vary primarily depending on whether an insured person is employed, and the sort of employment that person is in. Legally mandated contribution rates differ substantially across groups and have been largely unchanged since 2004 (Table 1). All contributions are pooled by the HIIS. Although contribution rates differ by category of insured person and are specified according to the rights afforded to each insured person, contributions are not earmarked for particular groups or services which allows for maximizing the benefits of having only one pool for all insured.
<table>
<thead>
<tr>
<th>Contributor</th>
<th>Employer</th>
<th>Employees</th>
<th>Farmers</th>
<th>Pension and Disability Insurance Institute</th>
<th>National employment office</th>
<th>Republic of Slovenia</th>
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<td>Formally employed</td>
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<td>Gross basis for pension insurance</td>
<td>Cadastral income</td>
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<td>Compensation for time off work</td>
<td>Paid benefit increased by a coefficient or gross compensation</td>
<td>Average gross wage in Slovenia for October of the previous year</td>
<td>Average gross wage in Slovenia for October of the previous year</td>
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<td>25% of the last known average annual wage in Slovenia for October of the previous year</td>
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<td>For health services, reimbursement of travel costs</td>
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<td>5.21%</td>
<td>18.78%</td>
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Source: HIIS, 2015
Notes: * Until 1.7.2012 contribution rate was 12.92%; **Only applies to insured person from 19 and 19a, the first paragraph of Article 15 of Health Care and Health Insurance Act.
Actual average monthly HIIS contributions capture variations in wages, pensions, the number of people not contributing, and other characteristics (Figure 14). Although the actual contribution levels have mostly increased from year-to-year, this has not always been the case; for example, one explanation for declines in average contributions could be if large numbers of people in a particular category stop paying their contributions.

While from 2004 to 2010, average annual growth in monthly contributions by individuals employed in legal entities (the category with the largest average contributions per person and also with the largest number of enrolees) increased by 5.5%, from 2010 to 2014, average annual growth for this group slowed to 0.6%. Since 2010, average annual growth in contributions by pensioners has been 0.0%, while it had been 4.2% from 2004 to 2010. Although growth in monthly contributions has slowed for the employed, the level of contributions by the employed remains significantly higher than all other groups. As of 2014, an employed person on average contributed 202.59 EUR per month to HIIS for coverage for themselves and their household; the next highest contributing group was persons performing independent business (€129.40) followed by the unemployed (€103.81) for whom contributions are made on their behalf by the unemployment agency. In 2014 there was a notable increase in per person contribution levels from the self-employed due to a change in the law, as well as a decrease in per person contribution levels from the unemployed due to reductions in contribution rates and changes to the basis for their contributions.

Fig. 14: Average per person monthly contributions to HIIS (€), 2004 – 2014

Source: HIIS, 2015
There have also been shifts in the mix of HIIS enrollees, which has important implications for revenues due to the variation in the average contribution levels across categories, as shown above. Between 2004 and 2008, the percentage of total HIIS enrollees and their family members who were registered as private non-farm employed contributors increased every year (Figure 15). However the share of people in this category has steadily declined until at least 2013; this leads to significant losses for HIIS revenues because this group historically has paid the highest contribution levels. At the same time, groups with relatively low contribution levels, such as the self-insured and pensioners have increased.

**Fig. 15: Mix of people enrolled in HIIS, by category of contributor, 2004 - 2014**

Consolidating these groups further into the active employed population (employed, self-employed and farmers), persons covered by public funding (retired, unemployed, etc.) and all respective family members, we can see a clear decline since 2008 in the active population and an increase in the persons covered by public funding (Figure 16). There has also been a slight increase in the number of non-contributing family members covered. Clearly, declines in HIIS revenues have occurred in part as a result of households shifting into HIIS categories with lower contribution rates. This has important implications because even as total revenues decline, HIIS must still provide coverage for the entire enrolled population.
Complementary health insurance has remained profitable throughout most of the crisis

Complementary health insurance (CHI) is available from three insurance companies, and although individuals are able to choose between them, each offers essentially the same product. The majority of CHI covers the coinsurance for services that are paid for by HIIS; more than 95% of the population that is liable for co-payments has this sort of CHI coverage. The largest insurer in terms of market share is Vzajemna, historically followed by Adriatic Slovenica and Triglav. In 2008, Vzajemna covered 60.5% of total CHI enrollees, followed by Adriatic (23.4%) and Triglav (16.1%). By 2014, Vzajemna’s market share had fallen to 56.0%, while the other two insurers were nearly equal in size (Insurance Supervisory Agency, Statistical Reporting, Sheet St-2).

Overall levels of enrolment in CHI have not changed dramatically since the crisis. There have been increases in enrolment for Triglav in every year (2008-2014) and corresponding decreases from Vzajemna in all of these years except 2014. Overall, the largest decrease in total enrolment was in 2010, when the number of CHI enrollees fell by around 12,000 people (-0.8%);
there were smaller decreases in CHI enrolees of around 8,200 and 3,800 in 2009 and 2011, respectively. These declines may have been due in part to increases in foreign migrants leaving the country during the crisis. Total enrolment in 2014 (1,485,697) was at its highest level since 2008 (1,492,330). Since 2009, the government has started to cover co-payments for economically disadvantaged people who meet predetermined criteria. This population is not recorded as being enrolled in CHI, but their insurance policies remain valid.

Premiums have been community rated since 2006, are similar across the insurers (i.e. premiums currently do not differ across insurers by more than €1 per month) and do not generally increase drastically over time. The large premium increase in 2014 was in response to the 2012 Fiscal Balance Act, which shifted some costs from HIIS to CHI in an effort to keep public expenditure sustainable (Table 2). As a result, CHI expenditure increased by around €66 million annually, leading all insurance companies to raise premiums by more than 16%. However, the 2014 premium increase was greater than needed to cover expenditure; Vzajemna subsequently returned one month of 2014 premiums to its enrolees and premiums in 2015 were also reduced.

To ensure that the insurers are not disproportionately burdened by taking on higher cost enrolees, an equalisation scheme has been in place since 2006. Risk equalization is retrospective, calculated on the basis of expenditures for health care services and for health care providers. This has always led to resources being transferred to Vzajemna from Adriatic Slovenica and Triglav, because Vzajemna covers more than 90% of pensioners; however, the amount transferred is typically no more than €3 million total per quarter.

Table 2: CHI Premium levels\(^1\) (Vzajemna) and percent increase

<table>
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<th>Date</th>
<th>EUR</th>
<th>Percent increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.3.2006*</td>
<td>19.17</td>
<td></td>
</tr>
<tr>
<td>1.11.2006</td>
<td>20.11</td>
<td>4.90%</td>
</tr>
<tr>
<td>1.9.2007</td>
<td>20.11</td>
<td>0.00%</td>
</tr>
<tr>
<td>1.1.2009</td>
<td>21.10</td>
<td>4.92%</td>
</tr>
<tr>
<td>1.1.2010</td>
<td>23.12</td>
<td>9.57%</td>
</tr>
<tr>
<td>1.1.2011</td>
<td>22.55</td>
<td>-2.47%</td>
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<tr>
<td>1.4.2012</td>
<td>23.88</td>
<td>5.90%</td>
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<td>16.25%</td>
</tr>
<tr>
<td>1.4.2015</td>
<td>26.79</td>
<td>-3.49%</td>
</tr>
</tbody>
</table>

Source: Payroll item, Ministry of Health
Notes: *Amending Act on Health care and health insurance; ** Fiscal balance Act

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\(^1\) Monthly premium with 3% discount.
Disregarding forms of income such as investment that are unrelated to health care services, it is evident that private insurers have had reasonable financial success in recent years (Figure 17). Total net premiums declined only slightly between 2009 and 2010 from around €403 to €401 million, and slightly more substantially between 2013 and 2014 (€476 to €465 million). However, in all years other than 2010, the premiums collected were greater than the sum of claims paid and other operating costs. Between 2009 and 2014, the difference between premiums and claims plus operating costs (i.e. not including investment and other forms of income) averaged €8.7 million per year. The main reason for profitability has been the slower growth in net claims, particularly in 2011 when claims grew by 2.0% but net premiums increased by 4.7%. Net operating costs have remained largely stable, though they increased by 17.8% between 2013 and 2014, mostly due to increased acquisition costs and in part due to an increase in labour costs (wages and salaries). As a share of total premiums, net operating costs are fairly high, but have fallen from 15.0% in 2008 to a low of 9.0% in 2013, though this share increased to 10.9% in 2014. Between 2009 and 2014, around 12% of CHI premiums were not used to pay for health care; premiums minus claims on average amounted to around €54 million each year.

Fig. 17: Profitability of CHI – Premiums, claims and operating costs, 2007 - 2014
The previous discussion refers only to CHI schemes which cover mandatory coinsurance payments. Aggregating across all forms of CHI (including those schemes that purchase care on behalf of their enrollees), and including all types of earnings and expenses, private insurers profited an average of €10.1 million each year between 2009 and 2014 (Figure 18). 2010 was the only year since 2006 when insurers suffered losses (€-5.7 million).

**Fig. 18: Profits or losses from all CHI operations, 2007 - 2014**

Source: Insurance Supervision Agency, 2015

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**Health expenditures**

In this section we look at health care expenditures, using both National Health Accounts\(^2\) and HIIS data, to better understand where there have been significant changes. We begin by discussing overall expenditure trends, followed by trends by financing agent. We then look at more detailed data on expenditures in specific sectors.

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Health expenditure consumes more of GDP since the crisis, but expenditure levels have been almost unchanged since 2009 in nominal terms

Between 2003 and 2008, current health expenditure (excluding capital formation) comprised between 7.5 and 8.1% of GDP (Figure 19). This share grew rather rapidly, increasing to 8.6% in 2009, however the decline in GDP in 2009 plays a major role in the magnitude of this increase. From 2010 through 2014, current health spending consumed a fairly steady share of GDP – between 8.5 and 8.7% -- even as GDP growth slowed or contracted. In 2014 according to preliminary data\(^3\), total current health expenditure in Slovenia accounted for 8.6% of GDP.

Fig. 19: Total, public and private current health spending as a share (%) of GDP, 2000-2014

According to National Health Accounts data, average annual growth of per capita health expenditure levels in Slovenia was 7.3% between 2003 and 2008 (Figure 20). This rate fell considerably in 2010 as per person expenditures shrunk by -0.5% in nominal terms. In the following 4 years from 2010 to 2014, expenditures grew at an average annual growth rate of only 0.6%.

The slowdown in health expenditure growth as a result of the financial crisis was much more severe in Slovenia than many other countries in the EU. According to data from Eurostat, EU countries with slower average annual growth than Slovenia in per capita expenditures between 2008 and 2011 included Estonia, Spain, Hungary, Poland, Portugal and Romania.\(^4\) In nominal terms, per capita current health spending in Slovenia in 2012 was 2,003 EUR (PPP), 91% of the EU-28 average (€2,193 PPP) (OECD, 2014).

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\(^3\) HIIS business report for 2014. Data according to the SHA methodology estimated in conjunction with the SURS.

\(^4\) Comparable data is not available from Eurostat for Croatia, Greece and Latvia.
**Fig. 20: Health expenditure levels (€ per capita) and growth in Slovenia, 2000-2014**

Note: *excluding capital formation; GDP by ESA 2010 revision.

**Public expenditure is primarily by HIIS and has slowed considerably**

Trends in overall spending are largely driven by public expenditure, as it makes up the majority of health care spending. Although public spending on health appears relatively steady when looking at health as a share of government spending (Figure 9) this obscures the fact that growth in the level of total government spending has slowed since the crisis, and even declined in 2012 (Figure 8). Nominal growth in yearly per capita public expenditure on health has been negative in 3 out of 5 years between 2010 and 2014 (Figure 21). In fact in real terms, per capita public health expenditure declined yearly on average by -0.9% between 2010 and 2014 (IMAD).
**Fig. 21: Public health expenditure levels (€ per capita) and growth in Slovenia, 2000 - 2014**

![Graph showing public health expenditure levels and growth in Slovenia, 2000-2014](image)

Note: *excluding capital formation; GDP by ESA 2010 revision.

Public spending as a share of total current expenditure has declined slightly since the crisis began (Figure 22). Between 2003 and 2007, public spending averaged 72.9% of current health expenditures (excluding capital investment). This increased in 2008 to 73.6%; however, since that time, the public share of total spending has declined in 4 of 6 years. As of 2014, according to preliminary estimates, public spending made up 71.4% of total current spending.

**Fig. 22: Structure of current health expenditure by source of financing, 2003-2014**

![Graph showing structure of current health expenditure by source of financing, 2003-2014](image)

Health expenditure by the central government is mostly for investments, governance of the health system, financing for some programs in the area of public health and prevention, and co-payments for people with very low income. Although central and local governments spend only a small amount of their resources on health care services (3.3% in 2014), this amount has not changed substantially since prior to the crisis (Figure 22). However as a share of total spending (inclusive of capital formation), central and local government expenditure has declined following a high of 8.5% in 2009, and is estimated at 6.3% in 2014. This decline reflects not only lower government expenditure overall, but also lower priority for health—particularly health sector investments—within government budgets. In 2008, the central government spent 1.03% of its budget on health; this fell in every year through 2012, when it reached 0.58%. It has since rebounded slightly, reaching 0.8% in 2014, but health continues to consume less than one percent of the central government budget.

**Fig. 23: Public share (%) of current health expenditure, 2012**

![Bar chart showing public share of current health expenditure by country](image)

Source: SIRS and OECD Health at a glance 2014

Although public spending remains the primary source of financing in Slovenia, compared to other EU countries, the public share of current health expenditure (i.e. excluding capital formation) (71.8% in 2012) is slightly below the EU average (73.0%) (Figure 23). Almost all of this spending is by the HII; as mentioned, spending by central and local governments makes up a very small percentage of health spending, and is low compared to other European countries. Just 3.2% of current health spending was spent by central and local governments in 2012 in Slovenia; within the EU only Croatia spent a smaller share. However, in many EU countries shown in Figure 23 that have a high share of spending by social security funds such as Hungary, France, Czech Republic, Slovakia and Lithuania, a significant percentage of social security expenditure is in fact funded from general government sources. For example, in Hungary more
than half of expenditure by social health insurance comes from central government transfers; in Slovenia, the vast majority of social security funds comes from enrolee contributions.

**Private spending has substituted for declining public expenditure growth (by design)**

Private spending is primarily comprised of spending by CHI (most of which pays the coinsurance portion of HIIS covered services) and household spending; corporations also pay for a small portion (mainly for occupational health and capital investments). There was a marked increase in total private spending as a share of GDP as a result of the crisis (Figure 19). While in 2008 private expenditure accounted for 2.1% of GDP, in 2014, according to preliminary estimates\(^5\), private health expenditure accounted for 2.5% of total GDP.

Complementary health insurance is the largest form of private health expenditure; in total CHI paid for 12.9% of current health spending in 2008. This increased every year through 2013, reaching 15.2%, before declining slightly in 2014 to 14.8% (preliminary estimate). The increased share of spending by CHI has two possible explanations. Either (1) people are enrolling in types of supplementary voluntary coverage that pay for more than just HIIS coinsurance payments, for example, coverage that skips queues or provides access to services not covered by HIIS, or (2) costs have been shifted onto the private sector by way of increasing coinsurance rates for HIIS covered services or through greater demand for services with relatively higher coinsurance rates. Looking at net expenditure on claims for supplementary CHI coverage, however, we see that the first explanation is unlikely (Figure 24). Aside from the fact that the level of supplementary CHI claims expenditures is very small, these have fallen substantially since the beginning of the crisis, such that the level of claims expenditure was lower in 2014 than in 2010. Total premiums for supplementary CHI coverage fell dramatically in 2011 by 35%, however they have increased each of the following three years. While retaining a very small share of the market, supplementary CHI premiums are consistently much greater than claims; total premiums in 2014 were €7.9 million – 3.5 times as large as claims (€2.2 million).

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\(^5\) HIIS business report for 2014. Data according to the SHA methodology estimated in conjunction with the SURS.
Alternatively, net claims for complementary CHI, which covers HIIS coinsurance payments, have increased in all years since 2007, other than 2014, when growth declined by 3.4% (Figure 25). Therefore, the increased share of private insurance spending seems to be due to greater spending by complementary CHI on coinsurance, rather than more people signing up for CHI to cover non-publicly funded services. It is important to note, however, that throughout this time period of increasing private insurance expenditure, aside from in 2010, CHI remained profitable, as mentioned (Figure 18).
Households pay for a small portion of health care because of complementary CHI coverage

Historically, out-of-pocket expenditure in Slovenia plays a relatively small role in financing health care because CHI effectively covers co-payments for HIIS services. Out-of-pocket expenditure is primarily to purchase goods and services not covered by HIIS and to access health care from the private sector. During the crisis, households did not increase their share of current health financing substantially; between 2008 and 2014 households paid for between 12.2 and 12.8% of current health expenditure (Figure 22). However, according to Household Budget Survey data, since the crisis, the share of total household consumption spent out-of-pocket on health care has increased from 1.8% in 2008 to 2.3% in 2012. This has been driven by relatively wealthy households, whose increases in out of pocket spending relative to total household spending are more profound, and who spend higher levels overall than poorer households. Indeed, in 2012, poor households in the first quintile (i.e. the poorest 20% of households based on per equivalised person consumption expenditure) spent €232 per year out-of-pocket on average, whereas wealthy households in the fifth quintile (i.e. the wealthiest 20% of households) spent €728 per year. As of 2012, nearly two-thirds of out-of-pocket spending was on medical products, such as pharmaceuticals and medical equipment. Around one-quarter of spending was for dental services.

Generally out-of-pocket expenditure is not a significant barrier to accessing health care in Slovenia. This is confirmed according to EU-SILC data, where Slovenia consistently has among the lowest (if not the lowest) levels of unmet health care needs in Europe for all income groups. In 2013 for example, 99.8% of the population declared no unmet needs, which to a great extent is due to the large bundle of rights covered by compulsory and complementary health insurance.

Additionally, using a methodology developed by the WHO Barcelona Office for Health Systems Strengthening to measure financial protection, it is evident that Slovenian households are largely protected from the costs of health care (Figure 26). In 2007 before the crisis, only 0.1% of households experienced catastrophic spending, with more than half of this spending for dental services that are not covered by HIIS. By 2012, catastrophic spending increased in absolute terms to just 1.0% of households, and more than half of catastrophic spending was still for dental services. Interestingly, in 2007 43.2% of households had no out-of-pocket expenditure at all, while this fell to 22.4% in 2012 indicating an increased propensity for households to purchase health care goods and services out-of-pocket; however, the large majority of households spending out-of-pocket were still not at risk of impoverishment as a result of out of pocket health care spending.

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6 The incidence of catastrophic expenditure includes households for whom out-of-pocket health expenditure is greater than 40% of their capacity to pay, households impoverished by out-of-pocket health care expenditures and households living below subsistence levels who incurred out-of-pocket health care expenditures.
Fig. 26: Financial protection, 2007 and 2012

Source: Calculations based on Household Budget Survey Data; Note: More impoverished households are below subsistence levels but have OOP expenditure; impoverished households spend more OOP than their capacity to pay; at-risk of impoverishment households had consumption minus OOP below 120% of subsistence levels; no-risk of impoverishment are households for consumption minus OOP is greater than 120% of subsistence levels.

*Overall health expenditure growth has slowed, with some shifting of costs from public to private*

In general, there have been only minor changes in recent years in terms of who is paying for health care in Slovenia (Table 3). There has been an overall slowdown in growth, including some years of declines in public expenditure since the crisis, mostly due to lower spending by HIIS. This decline has perpetuated a slight shift from public financing of health care to private, as CHI covers a larger portion of the health bill through coinsurance payments (Figure 27).

Fig. 27: Real growth of health expenditure, 2003-2014

Source: SIRS: 2003-2013; OECD Health Data 2015: 2014 preliminary calculations by IMAD; Note: *excluding capital formation; GDP by ESA 2010 revision; GDP deflator is used for calculation of health expenditure in constant prices.
The types of goods and services purchased have not changed very much in recent years

Overall, the level of public spending on health increased most significantly between 2007 and 2008 and has been relatively stable since then. The increase between 2007 and 2008 was primarily due to increases in spending for inpatient, outpatient and day care, driven mostly by increased spending across the board due to the public sector wage reform (Figure 28). Since 2008, there have been only minor variations in the distribution of public health care spending. The distribution of spending compares favourably with the EU average. Based on the OECD Health at a Glance 2014 report, Slovenia spent a slightly smaller percentage than the EU average on outpatient care, and slightly more on medical goods, administration and prevention (aggregated as a single category) in 2012.
Among the small shifts in the distribution of spending that have occurred between 2008 and 2013, the changes appear generally positive from an efficiency perspective (Figure 29). For example, the share of public spending on administration declined by 0.1 percentage points between 2008 and 2013 (2.6% to 2.5% of total government health spending), continuing a fairly steady decline since at least 2003. Compared to other EU countries in the OECD, Slovenia’s expenditure on administration as a share of total current health care spending is somewhat high – 4th among the 18 EU countries with 2013 data available in the OECD Health database. However, private health insurance administration is a major reason for high overall administrative costs; private health insurance administration accounts for 1.8% of total health expenditure, or alternatively, around half of total administrative expenditure, despite only paying for around 15% of current health expenditures. Among the 9 EU countries with 2013 data available, Slovenia had the highest share of current expenditure spent on private administration, but the 2nd lowest share of current expenditure spent on administration by the public sector.

There has also been less public expenditure on medical goods dispensed to outpatients, which likely reflects declines in prices, increased coinsurance rates and other measures rather than lower volume of drugs consumed. One reason to suspect this is that the number of prescriptions between 2008 and 2012 increased from 15,795 to 16,763 (in millions) (NIPH data, 2014). The share of spending on medical goods dispensed to outpatients declined from 15.1%
to 14.3% during this time period, with the level of spending in nominal terms lower in 2012 than in 2008.

However the largest decline in the share of spending has been for capital formation, which could be problematic if investments are needed to maintain facilities or improve capacity (see below for more discussion on capital investments). Capital formation last experienced fairly large increases in 2008 and 2009.

**Fig. 29: Change in distribution of public health care expenditure, 2008 to 2013**

![Chart showing changes in distribution of public health care expenditure, 2008 to 2013.]

Source: SURS, NHA, 2015

Although expenditure reductions in some areas have allowed for an increased share of resources to be spent on curative and rehabilitative care, there is evidence that Slovenia could achieve savings by continuing to shift towards more outpatient or day care. For example, Slovenia’s number of inpatient surgical procedures per 100,000 persons is fairly high (7,577 procedures as of 2010) compared to the EU average of 6,779 procedures in 2009 (the year with the latest EU data available) (WHO-HFA database). There has already been some success though in this area. Using cataract surgeries as a case study, it is evident that there has been a clear shift away from inpatient cataract surgery towards less resource intensive settings, such as outpatient care (**Figure 30**). Additionally, in 2015 health care providers committed in a General Agreement to shift patients from inpatient care to day-hospital care and outpatient specialist care. Waiting periods are to be shortened for first visits to outpatient specialist care, and where possible, home care services will be better developed and/or patients will be dismissed as early as possible and transferred to rehabilitation-spa-institutions (2015 General Agreement, Article 2, para 1, point 7).
**Slower expenditure growth has resulted from reduced spending across many different types of services**

Although most public spending is by HIIS, it is helpful to examine HIIS expenditure data in addition to NHA data. As mentioned, overall expenditure by HIIS has slowed considerably; while between 2004 and 2008 average annual nominal growth in expenditures was 6.9%, between 2008 and 2014 growth averaged only 1.0% per year. In three of the six years from 2008 to 2014, annual growth was negative.

This slowdown in spending has been driven by reductions in spending for all types of services, with the exception of spending on services abroad (Figure 31). The largest expenditure category is outpatient specialist and hospital services, and in general, it is an important determinant of aggregate patterns. This category has grown at a modest 1.1% average annual nominal growth from 2008 to 2014. This is a notable slowdown from average annual growth of 9.3% between 2004 and 2008 (although again, much of this growth occurred due to wage reform in public sector in 2008, so that average annual growth between 2004 and 2007 was a more modest 6.2%).
Year by year, different services have been the primary driver of slowdowns through measures such as price reductions, increases in coinsurance rates and delayed payments (see section below for a description of key measures to reduce expenditures in each year). In 2010, the first year of near 0% expenditure growth for HIIS (0.4%), savings were achieved due to reductions in spending on drugs, spa rehabilitative services, and outpatient specialist and hospital services, effectively cancelling out increases in cash benefits of 10.3%. In 2011, reductions of -0.3% in expenditures overall were driven by lower spending on outpatient specialist and hospital services, administration, and cash benefits. For 2012, there was almost no aggregate growth, however this masks significant variation: relatively large reductions in drug spending, medical aids and blood supply, spa rehabilitative services and “other” types of spending, with positive growth in all other areas. In 2013 and 2014, outpatient specialist and hospital services, again, was responsible for most of the variation in growth.

**Fig. 31: Contribution to growth of HIIS spending, by services, 2005-2014**

The only area with notable increases during the crisis has been services delivered abroad that are paid for by HIIS; this is primarily due to delays paying other countries – particularly Bosnia – for care provided to Slovenian citizens abroad. In 2008, 0.6% of all expenditures were for current transfers abroad, yet by 2014 this had increased to 1.6%. In 2011, services delivered abroad grew by 58.6%; in 2014 they increased by 37.1%. The increase in spending for services
abroad between 2010 and 2011 (+€14.4 million) almost entirely cancelled out the reduction in spending on outpatient specialist and hospital services (-€14.6 million).

This is also reflected in aggregate OECD data, where between 2007 and 2012, there has been 7.4% average annual growth in the importing of health care services; nevertheless, it only represents 0.33% of total expenditure in 2012 (OECD, *Health at a Glance 2014*, page 131). In fact, there has actually been greater growth in health services exports, growing 23.7% per year on average from 2007-2012, and comprising 1.58% of total health care spending.

Lastly but of note, HIIS has become responsible for paying for certain non-service delivery items, such as provider training and specializations. Prior to 2008 these costs were paid by the state budget; however since that time they have been funded by HIIS. In 2014, expenditures for specializations funded by HIIS amounted to €45,821,329 and for trainees €16,919,965. Also, on May 30, 2013, the Republic of Slovenia Budget for 2013 and 2014 Act increased the general VAT rate from 20 to 22% and increased the reduced VAT rate from 8.5 to 9.5 %. This contributed approximately €1.5 million of additional HIIS expenditures in 2013; annualized, it is estimated that the VAT rate increase contributes about €3.5 million to HIIS expenditure. HIIS is also financing research and postgraduate education in the context of Tertiary I (approximately €17.3 million annually). No additional funds were provided to HIIS to compensate for this new spending.

**Key drivers of changes to health spending**

This section discusses some of the key actions that have facilitated the slowdown in public health care expenditure growth and the shift towards private financing. Importantly, HIIS operates in accordance with the Stability Pact, whereby HIIS is not allowed to record a loss at the end of the year or go into debt, although HIIS can obtain short-term loans from the treasury throughout the year. Bearing this in mind, there are essentially four ways that health expenditure trends are altered in Slovenia to prevent HIIS from incurring debt while maintain care delivery:

1) Changes in prices (i.e. maintaining the volume of services despite reductions in revenues)
2) Changes in coinsurance rates
3) Delayed expenditure by HIIS
4) Reductions to HIIS administrative costs

*Changes in the value of DRG points have a significant effect on public spending*

One of the key factors behind the slowdown in expenditures has been the declining value of DRG points, which reflect the price paid for hospital services (*Figure 32*). Between 2007 and 2008, the price of a DRG point increased dramatically, from €1068.62 to €1264.98, mainly due
to wage reform in the public sector. This 18.4% increase coincided with a 19.2% increase in HIIS spending on outpatient specialist and hospital care, and a 13.8% increase in HIIS expenditures overall. Since 2008, the price of a DRG point has declined continuously every year, so that by 2014, a DRG point was only worth €1,122.23.

Results of a Eurostat/OECD project on comparing hospital prices internationally show that Slovenia in 2011 had price levels for hospital services that were 82% of the average EU price level, whereas for example in Ireland hospital services were prices at 181% of the EU average, in Austria at 156%, France 123% and on the other hand Czech at 60% (Koechlin, F. et al., 2014).

The value of a DRG point is a function of the revenues available to cover contracted services: as revenues fall and the volume of services stays mostly constant, reductions in the price of services are required to prevent HIIS from incurring debt. The DRG point value is subsequently revised during the year as data become available on the level of resources that are expected to be available to HIIS for the rest of that year.

Fig. 32: Changes in the average annual value of a DRG point

There is naturally a strong correlation (=0.85) between annual growth in the price of a DRG point and annual growth in HIIS spending on outpatient specialist and hospital services between 2005 and 2014. While declines in the value of a DRG point have led to savings for HIIS, this comes at the expense of lower payments to hospitals, which have to reduce costs and operate efficiently. However, some also suffer financial losses and extension of waiting times for certain services (see section below). Ultimately, an extra payment in 2014 was made to providers for procedures whose volume is not capped and for those procedures that are
reimbursed 10% over the planned contracted volume; if a provider had an increase in first visits then they also received an extra payment.

Changes in DRG points also lead to changes in costs for CHI. If HIIS is paying lower prices for services, then CHI will also benefit from lower payments assuming that coinsurance rates do not change simultaneously. This would suggest that decreases in the value of DRG points can also produce savings for CHI. However, there is not a strong correlation between changes in net claims for CHI and changes in DRG points for the years with data available, in part because coinsurance rates have also been changing and because CHI continues to pay the coinsurance portion of services that are delivered above HIIS contracted volumes.

Changes in coinsurance rates reduce public spending but shift costs onto CHI

Although reductions in prices lead to lower public spending at the expense of providers, another tool to lower public spending in Slovenia has been to raise coinsurance rates. This lowers the public burden by shifting it to private, but still pooled funding provided by CHI, since nearly all Slovenians have complementary CHI coverage. The comparatively low public share of total health expenditures in Slovenia compared to other EU countries is maintained to some extent because of high coinsurance levels for the public benefit package (Figure 23).

Changes to coinsurance rates have been an important driver of the shift from public to private financing. The level of coinsurance paid by HIIS differs both for specific services, as well as in many cases over time (Table 4). Actual coinsurance rates must conform to legislatively set minimum and maximum coinsurance rates, depending on the type of service. For some goods and services, HIIS is required by law to cover a minimum share of the cost of care. For example, as of 2011 HIIS must cover at least:

1) 100% of the cost for prevention, children, pupils and students, obligatory vaccination, some hospital treatments, emergency medical treatment, medicines on the positive list and organ transplants;

2) 90% of the cost for treatment abroad, intensive therapy, radiotherapy, dialysis, diagnostics, and therapeutic and rehabilitative services;

3) 80% of the cost for outpatient services, outpatient, hospital and spa services as an extension of hospital care, non-medical care in a hospitals and in spas as an extension of hospital care, except for injuries outside work, treatment of dental and oral diseases, medical and technical aids;

4) 70% of the cost for outpatient, hospital and spa services as an extension of hospital care and non-medical part of the hospital and spa services as a continuation of hospitalization, medical devices relating to the treatment of injuries outside work, medicines on positive list.

For other services, HIIS is required to cover no more than:
5) 60% of the cost for transport services, spa treatment, which is not the continuation of hospital treatment;

6) 50% of the cost for medicines and dietary foods for special medical purposes from intermediate lists, adult dental prosthetic treatment, medical devices to improve eyesight for adults.

While coinsurance is often used in other health systems in an effort to reduce demand, since it is paid for by CHI in Slovenia in nearly all instances, it cannot do this effectively. In fact, coinsurance may increase demand because some services are only reimbursed by HIIS up to a contracted volume cap, whereas CHI always reimburses the coinsurance portion of any delivered care within the HIIS benefits package, since CHI has no way of knowing when contracted volumes have been met. This may incentivize more services with high levels of coinsurance to be provided, although there is no evidence that this occurs systematically.

Table 4: Percentage of health care price that is paid by HIIS

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<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>1. Groups, diseases, services and injuries at work covered in full price</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>2. Very sophisticated medical services</td>
<td>99</td>
<td>95</td>
<td>95</td>
<td>95</td>
<td>90</td>
</tr>
<tr>
<td>3. Medical services on primary level, dentistry - adults- treatment (diseases and injuries outside work which are not included in 1. group)</td>
<td>85</td>
<td>85</td>
<td>85</td>
<td>85</td>
<td>80</td>
</tr>
<tr>
<td>4. Outpatient specialist and hospital services, spa rehab. which is continuation of hospital treatment (for diseases, not for injuries)</td>
<td>95</td>
<td>85</td>
<td>85</td>
<td>85</td>
<td>80</td>
</tr>
<tr>
<td>5. Medical aids (diseases)</td>
<td>95</td>
<td>85</td>
<td>85</td>
<td>85</td>
<td>80</td>
</tr>
<tr>
<td>6. Injuries outside work (outpatient specialist and hospital services, spa rehab. which is continuation of hospital treatment and medical aids)</td>
<td>80</td>
<td>75</td>
<td>75</td>
<td>75</td>
<td>70</td>
</tr>
<tr>
<td>7. Drugs P list</td>
<td>80</td>
<td>75</td>
<td>75</td>
<td>75</td>
<td>70</td>
</tr>
<tr>
<td>8. Drugs I list</td>
<td>50</td>
<td>25</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>9. Spa treatment, which is not a continuation of hospital treatment</td>
<td>60</td>
<td>40</td>
<td>15</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>10. Dentistry - adults - dental prosthetics</td>
<td>45</td>
<td>25</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>11. Non - urgent transportation rescued</td>
<td>60</td>
<td>30</td>
<td>30</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>12. Medical devices for vision</td>
<td>50</td>
<td>25</td>
<td>25</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: HIIS Data, 2015
When in doubt, HIIS avoids debt spending by delaying expenditures until the following year

In cases where liabilities exceed revenues and there is no option to reduce prices, HIIS has in many instances delayed payments until funds are available, effectively passing its debt onto providers. In the period of 2010 to 2013, HIIS postponed payment of liabilities arising from the current year until the next year to ensure a balanced cash flow. In 2011, €41 million were passed on to be paid in 2012, in 2012 €64 million were passed on to be paid in 2013, and in 2013 €49 million were passed on to be paid in 2014. In 2014 HIIS paid all liabilities without needing to transfer any expenditures to 2015.

HIIS can also reduce its own administrative expenditure, though current administrative spending is quite low

In addition to the aforementioned approaches, HIIS is able to reduce health expenditure somewhat by reducing its own expenditures on employees and other administrative costs. HIIS administrative spending (i.e. expenditures on HIIS salaries, benefits, interest, and capital expenditure etc.) is already quite low. In 2008, this comprised 2.3% of total HIIS expenditure; HIIS expenditure on administration declined in 2010, 2011 and 2013 and reached 1.8% of HIIS expenditure in 2014. In nominal terms, administrative expenditure was lower in 2014 than it was in 2003. The maximum number of employees HIIS is allowed, as determined by the central government, has been reduced in every year since at least 2006, when HIIS was allowed 952 employees; in 2015, HIIS was allowed a maximum of 857 employees. Given that public health administrative costs are quite low, particularly relative to other OECD countries (see section on Health Expenditures), further reductions are not likely to achieve significant savings for the health system.

Specific actions taken to reduce HIIS expenditure since 2009

This section describes some of the specific actions taken to reduce health expenditure since 2009.

In 2009, the HIIS adopted several measures to ensure the financial sustainability of the health-care budget: reduction of health-care service prices by 2.5%; selective reduction of material costs in health-care service prices; rationalisation of operations for provision of funds for the promotion of employees; reduction of the calculated share of wages in the price of health-care services by 5%. In 2009, these measures brought €96.3 million of savings, while the savings at the annual level amounted to €138.9 million.

The measures adopted in 2009 also applied in 2010. Moreover, in 2010, Slovenia amended the Decision on determining the percentage of the payment of health services provided in compulsory health insurance, which increased the share of the cost of certain health services covered by complementary health insurance. In 2011, the Government adopted additional austerity measures to ensure the financial stability of HIIS of a total value of €25 million on an annual basis, through:
– lowering the percentage of the value of healthcare services covered under CHI by 5%;
– reducing the percentage of remuneration for periods of absence from work chargeable to CHI up to 90 days by 10%, with the exception of care, injury at work and occupational;
– change in levels of contribution for the unemployed (from 12.92% to 11.92%);
– abolishing the salary compensation during temporary absence from work for the unemployed;
– abolishing the possibility of lowering and cancellation of debt resulting from contributions for CHI;
– lowering price standards for medical technical aids;
– increasing pre-established compensation from the compulsory car insurance premium (from 6.5% to 8.5%);
– healthcare price reduction by 3% because contracted volumes were maintained (with 1.5. 2012);
– lowering of the basis for parental compensation by 10% (other than maternity compensation) and reducing the highest compensation (lowering of revenues from the contributions for CHI), indexation of pensions and other transfers, providing missing contribution rates.

In 2012, the above measures brought HIIS around €52.82 million of savings (that is, €103.58 million of savings annually). These austerity measures were short-term solutions; once GDP growth exceeded 2.5% growth in 2014, these intervention measures were meant to be partly corrected.

In October 2013 changes to the Health Care and Health Insurance Act were adopted; these included implementation of the cross-border healthcare Directive and new contributions to HIIS (e.g. income from copyright contracts, larger contributions from self-employed people). The financial gains for HIIS are estimated €35.8 million yearly.

There have been other measures to reduce HIIS expenditures in 2014. These include: changes to the Act amending and supplementing social protection benefits which abolished funeral costs and assistance as a right under CHI. Instead, assistance in the field of social security benefits is provided (two new forms of extraordinary cash social assistance). Because of this law, HIIS's expenses reduced by approximately €9.6 million per year. In addition, health service prices were not indexed by the average growth of prices (inflation) and HIIS saved approximately €13 million. HIIS also did not take into account: additional calculative assets arising from promotion in the health sector and additional calculative funds for health services arising from the elimination of the third quarter of disparities in basic salary (HIIS saved €64 million).
Health care goods and services

This section reviews hospitals, pharmaceuticals and long-term care. In many instances, detailed provider level data is not available to conduct a comprehensive performance assessment.

**Hospitals**

Hospitals have borne the brunt of reductions in HIIS expenditure. Total expenditures in hospitals declined in 2012 and 2013, going from €1.28 billion in 2011 to €1.24 billion in 2014. Nominal expenditure levels in 2014 were on par with spending levels in 2010.

These expenditure reductions put pressure on hospital finances, though there is limited data available to assess provider efficiency and ability to cope with fewer resources because of a lack of cost accounting by providers. There is, however, considerable variation across hospitals in terms of their profitability. For example, by the end of 2014, 19 out of 27 hospitals had a profit, while 7 hospitals had losses (Table 5). Hospitals have not been profitable in aggregate since 2009. The number of hospitals with cumulative losses peaked at 15 in 2013; in aggregate, public hospitals had around €131 million in cumulative losses by 2014 (Table 6). The main driver of losses in hospitals in 2013 in 2014 was elimination of the third quarter of disparities in basic salaries which occurred throughout the public sector. In accordance with Ministry of Health and Ministry of Finance, HIIS did not provide additional funds for hospitals for this purpose. HIIS did not have sufficient funds on its own (approximately €64 million) and according to the Ministry of Finance, all budgetary users must cover this using their own funds. In 2013, additional uncovered expenses just in hospitals amounted to €24.6 million. The majority of hospitals paid only the first half of obligations while the other half was paid in 2015 and recorded in 2014.

**Table 5: Current losses and profits in public hospitals**

<table>
<thead>
<tr>
<th></th>
<th>Losses €</th>
<th>Number of hospitals with loss</th>
<th>Profits €</th>
<th>Number of hospitals with profit</th>
<th>Total losses €</th>
<th>Accrued income €</th>
<th>Share %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>11,579,853</td>
<td>7</td>
<td>8,490,256</td>
<td>19</td>
<td>-3,089,597</td>
<td>1,240,230,974</td>
<td>-0.25%</td>
</tr>
<tr>
<td>2013</td>
<td>41,329,630</td>
<td>17</td>
<td>1,439,187</td>
<td>9</td>
<td>-39,890,443</td>
<td>1,197,389,506</td>
<td>-3.33%</td>
</tr>
<tr>
<td>2012</td>
<td>17,273,724</td>
<td>12</td>
<td>4,058,965</td>
<td>14</td>
<td>-13,214,759</td>
<td>1,253,918,513</td>
<td>-1.05%</td>
</tr>
<tr>
<td>2011</td>
<td>11,579,174</td>
<td>8</td>
<td>4,020,088</td>
<td>18</td>
<td>-7,559,086</td>
<td>1,268,856,087</td>
<td>-0.60%</td>
</tr>
<tr>
<td>2010</td>
<td>10,329,966</td>
<td>7</td>
<td>4,296,683</td>
<td>19</td>
<td>-6,033,283</td>
<td>1,235,680,065</td>
<td>-0.49%</td>
</tr>
<tr>
<td>2009</td>
<td>2,072,743</td>
<td>1</td>
<td>12,860,401</td>
<td>25</td>
<td>10,787,658</td>
<td>1,222,889,983</td>
<td>0.88%</td>
</tr>
<tr>
<td>2008</td>
<td>0</td>
<td>0</td>
<td>29,675,892</td>
<td>26</td>
<td>29,675,892</td>
<td>1,153,116,898</td>
<td>2.57%</td>
</tr>
<tr>
<td>2007</td>
<td>16,713,329</td>
<td>8</td>
<td>4,093,203</td>
<td>16</td>
<td>-12,620,126</td>
<td>962,091,505</td>
<td>-1.31%</td>
</tr>
</tbody>
</table>

Source: The Agency of the Republic of Slovenia for Public Legal Records and Related Services
Table 6: Cumulative losses and profits in public hospitals

<table>
<thead>
<tr>
<th></th>
<th>Losses €</th>
<th>Number of hospitals with loss</th>
<th>Profits €</th>
<th>Number of hospitals with profit</th>
<th>Total loss €</th>
<th>Total revenues €</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>131,350,567</td>
<td>14</td>
<td>10,895,066</td>
<td>12</td>
<td>-120,455,501</td>
<td>1,240,230,974</td>
</tr>
<tr>
<td>2013</td>
<td>123,107,086</td>
<td>15</td>
<td>10,718,038</td>
<td>11</td>
<td>-112,389,048</td>
<td>1,197,389,506</td>
</tr>
<tr>
<td>2012</td>
<td>83,900,907</td>
<td>13</td>
<td>13,078,753</td>
<td>13</td>
<td>-70,822,154</td>
<td>1,253,918,513</td>
</tr>
<tr>
<td>2011</td>
<td>71,270,551</td>
<td>11</td>
<td>16,324,036</td>
<td>15</td>
<td>-54,946,515</td>
<td>1,268,856,087</td>
</tr>
<tr>
<td>2010</td>
<td>61,632,454</td>
<td>12</td>
<td>19,820,521</td>
<td>14</td>
<td>-41,811,933</td>
<td>1,235,680,065</td>
</tr>
<tr>
<td>2009</td>
<td>51,653,023</td>
<td>12</td>
<td>17,567,922</td>
<td>14</td>
<td>-34,085,101</td>
<td>1,222,889,983</td>
</tr>
</tbody>
</table>

Source: Balance sheets, The Agency of the Republic of Slovenia for Public Legal Records and Related Services

As of October 2013, 6 state-owned hospitals have been receiving liquidity loans from the state treasury just to repay urgent suppliers. At one point, there were threats that all supplies would be stopped due to long payment periods – however this did not materialize. Other hospitals are also receiving loans from the Ministry of Finance, with the total overdue obligations as of the end of 2014 amounting to around €100 million. In 2015 the Ministry of Finance decided that all loans must be paid back by the end of the year.

Despite these financial pressures, many hospitals continued to deliver services to patients above contracted volume levels, even though they were no longer receiving payment from HIIS. For example, in 2013 alone there were 15,696 instances of inpatient care that were delivered above the contracted volume—using DRG weights, this amounts to 25,652 DRG points, or alternatively, around €30 million of uncompensated care (assuming 100% payment by HIIS).

In some instances, this reduction in payments to hospitals coincided with increases in waiting times. In 2014, according to data from the National Institute of Public Health, the number of patients waiting for health care services increased from 155,862 to 182,498, whereby the number of patients waiting longer than the maximum waiting period rose by almost one third (from 14,770 to 24,815 patients). In the years before the crisis, funds had been directed towards reducing waiting periods for certain ambulatory care services and surgeries (IMAD, 2015).

Generally, given the dearth of information on how hospitals spend their resources, it is difficult to conclude whether hospitals could achieve efficiency gains. Since many hospitals remained profitable during the economic crisis, at least part of the issue regarding financial losses in some hospitals would appear to be due to poor management; this would be more easily evaluated with better data from providers on how resources are used. Nevertheless, data from the Agency of the Republic of Slovenia for Public Legal Records and Related Services shows that nominal costs for public hospitals in 2014 (€1,243,320,571) were lower than in 2011.
(€1,276,414,200), mostly due to reductions in labour costs and depreciation costs, indicating that overall, hospitals have found ways to improve efficiency. Additionally, some other basic indicators of hospital resources and activities also show that Slovenia improved efficiency during the crisis. The number of curative (acute) care beds has been reduced from 3.8 per 1000 population in 2008 to 3.6 in 2013; however, the OECD average is still a bit lower at 3.3 in 2013. In the same period, average length-of-stay in hospitals decreased from 7.5 days to 6.8, below the OECD average (7.3 days) and the number of hospital discharges increased by 7.4% (2013: 18,151 per 100,000; the OECD average was 15,550) (OECD Health Data 2015). However, in the absence of data on health outcomes or case-mix, it is not possible to firmly conclude that reductions in inputs led to efficiency gains.

**Pharmaceuticals**

The share of HIIS spending that goes to drugs has fallen from a high of 18.2% in 2006 to 14.4% in 2014 *(Figure 31)*. This has occurred for a variety of reasons. For example, in 2009, HIIS increased the coinsurance for medicines from the intermediate list from 85% to 90%, and in 2012 increased the coinsurance for medicines from the positive list from 25% to 30%. Additionally, in 2010 there was an agreement with the pharmaceutical industry for a 3% discount on drug prices, followed by a 6% discount in 2011 and a 9% discount in 2012. Likewise, in 2013 savings were achieved through introduction of a new system of therapeutic drug groups, which made it so that drug prices are based on the lowest priced medicine within a group of therapeutically comparable medicines, rather than among a group of medicines that share the same active pharmaceutical ingredient; this led to savings for HIIS as well as for private insurance companies. HIIS expenditures on drugs in 2014 (€278,342,609) were only 1.5% higher than they were in 2007.

This fall in pharmaceuticals spending as a share of total HIIS expenditure is also due to shifts in the share of drugs on the positive versus intermediate lists. The total number of drugs on both the positive and intermediate lists has increased between 2004 and 2014 *(Figure 33)*. However, the relative share on the positive list has declined substantially, which is important because drugs on the positive list have significantly lower coinsurance; only 10% of the price of drugs on the intermediate list was paid for by HIIS, compared to 70% of the price of drugs on the positive list. Whereas in 2004, 79.7% of drugs were on the positive list, by 2014, only 65.6% were on the positive list. The largest shift was in 2012, when the share of drugs on the positive list fell by 3.9 percentage points. This coincided with a -7.4% decline in growth of total HIIS expenditure on drugs. Of note, any drug prescribed for the population that is exempt from coinsurance (e.g. pregnant women, children, some chronic disease, etc.) is covered 100% by HIIS.
According to NHA data, 14.6% of current health expenditure went towards prescribed medicines in 2013, which was the 4th highest among EU countries in the OECD database with data available (considerably less than the top three: Hungary (29.3%), Slovak Republic (26.5%) and Latvia (24.5%)).\(^7\) 5.3% of this expenditure was by private insurance, by far the highest percentage among countries with data available. 9.1% of this expenditure was by HIIS, with only 0.2% paid out-of-pocket by households.

All public pharmacies have remained profitable between 2007 and 2014, though profit margins have fallen from a high of 5.8% in 2008 to just 1.8% in 2014 (according to data from the Agency of the Republic of Slovenia for Public Legal Records and Related Services). Public pharmacies have done this, in part, by cutting their costs at an average annual rate of -2.4% between 2010 and 2014.

**Long-term care**

Long-term care is an important area to look at given the ageing of the population. In Slovenia, based on the data obtained from the EU-SILC survey, in 2012, 26% of older people aged 65 or more reported that their disabilities were of a serious nature and limited their ability to perform everyday activities (EU: 20.5%), whereas this share in the 75 years and over age group amounted to 34% (28%), and in the 85 years and over age group it was 44% (EU: 40%).

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\(^7\) It should be noted that this comparison is also a function of salary and other expenditure levels. For example, salaries in Hungary are much lower than in Slovenia while drug prices are comparable, resulting in the drug share of total expenditure being higher in Hungary.
As of 2013 according to NHA data, expenditure on long-term health care comprised 9.6% of current health expenditure. This represents a gradual increase since 2003 when it was 8.1% of total spending. The majority of this expenditure is public. Across most European countries, with the notable exception of Finland, the share of health spending that goes to long-term care has increased similarly or stayed mostly constant over this time period. Including social care services in addition to long-term health care, the private sector foots a larger share of the bill. Private expenditure has been increasing much faster than public expenditure for a number of years, in real terms on average almost 7.0% annually between 2003-2013 (Figure 34 and Table 7).

Long-term care is organized via many different pieces of legislation, which in practice means that different payers pay for different services and cover different populations. Around three quarters of long-term care expenditure (health and social care) is paid for by the public sector, with a slight shift towards the private sector between 2003 and 2013. The public sector covers primarily health care (96.2% of long-term health care was paid for publicly in 2013), whereas private expenditure covers mostly long-term social services, primarily surcharges for accommodation and nutrition in homes for elderly and other forms of institutional care and household expenses for home assistance. HIIS covers almost half of total public expenditure for long-term care (47% in 2013). The Pension and Disability Insurance Institute of Slovenia contributes around 23% of expenditure for long-term care, the State and municipal budgets cover around 20%, and 10% is paid for by the Ministry of Labour, Family and Social Affairs.

Fig. 34: Real growth index for expenditure on long-term care in Slovenia, 2003-2013

Source: SURS; calculation by IMAD. Note: Data are based on the OECD, Eurostat, WHO System of Health Accounts 2011 methodology; GDP deflator is used for calculation of LTC expenditure in constant prices.

Slovenia lags behind the OECD average in terms of the population’s integration in long-term care, but less than indicated by previous estimates⁸; the share of the population exceeding 65

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⁸At the end of 2014, SURS published, for the first time, data on long-term care recipients in Slovenia according to the international OECD definition. For the first time, the evaluation of the home-nursing
years that is integrated into long-term care amounts to 11.9%, while the average of 21 OECD countries is 12.9%. 35% of long-term care recipients are in institutional care, 34% are recipients of long-term care services at home, about 30% of recipients receives only an attendance allowance to pay for home care and only 1% of recipients are included in long-term care day cases. Almost no money is spent on long-term day care. In Scandinavian countries, the ratio between institutional and home care expenditure is the opposite, while it is hovering around 50:50 in the EU as a whole. In the last decade, the ratio in Slovenia deteriorated further, with growth in public expenditure on long-term care at home in Slovenia being the lowest among the 19 countries of the OECD. While the majority of the OECD countries intensified public investment in long-term care at home in 2000–2011 (home-nursing service, care at home, cash benefits), Slovenia still recorded much higher public investment in institutional care (IMAD, 2015).

Table 7: Expenditure on long-term care by source of financing and by function, 2003–2013

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Public expenditure</td>
<td>192</td>
<td>245</td>
<td>339</td>
<td>349</td>
<td>342</td>
<td>178</td>
<td>4.8</td>
</tr>
<tr>
<td>Private expenditure</td>
<td>62</td>
<td>70</td>
<td>111</td>
<td>131</td>
<td>130</td>
<td>209</td>
<td>6.9</td>
</tr>
<tr>
<td>Share of GDP (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>0.99</td>
<td>1.08</td>
<td>1.24</td>
<td>1.33</td>
<td>1.30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public</td>
<td>0.75</td>
<td>0.84</td>
<td>0.94</td>
<td>0.97</td>
<td>0.94</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>0.24</td>
<td>0.24</td>
<td>0.31</td>
<td>0.36</td>
<td>0.36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structure (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public</td>
<td>75.5</td>
<td>77.8</td>
<td>75.3</td>
<td>72.7</td>
<td>72.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>24.5</td>
<td>22.2</td>
<td>24.7</td>
<td>27.3</td>
<td>27.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expenditure on LTC by function (in million EUR)</td>
<td>Nominal growth index</td>
<td>Average annual real growth rate, in %</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>254</td>
<td>314</td>
<td>450</td>
<td>480</td>
<td>471</td>
<td>186</td>
<td>5.3</td>
</tr>
<tr>
<td>Health care (HC.3)</td>
<td>179</td>
<td>230</td>
<td>315</td>
<td>327</td>
<td>314</td>
<td>176</td>
<td>4.6</td>
</tr>
<tr>
<td>Social care (HC.R.6.1)</td>
<td>75</td>
<td>84</td>
<td>134</td>
<td>153</td>
<td>157</td>
<td>209</td>
<td>6.9</td>
</tr>
<tr>
<td>Structure (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health care (HC.3)</td>
<td>70.4</td>
<td>73.3</td>
<td>70.2</td>
<td>68.1</td>
<td>66.7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: NHA, 2015

service was also taken into account, in addition to the recipients of long-term care; the share of those integrated in long-term care is therefore higher than stated in previous analyses, in particular the share of those integrated in long-term care at home.
Labour and capital costs

This section reviews labour and capital in the health sector to understand whether these resources are sufficient and being used effectively.

**Physician density is low relative to many other EU countries, but this is changing**

The supply of doctors and nurses is somewhat low in Slovenia compared to other EU countries (Figure 35). As of 2012, the number of doctors per capita was the third lowest among OECD countries (2.5 per 1000 population) (OECD, 2015); however, the numbers are increasing due to graduates from the new medical faculty at the University of Maribor. In total, as of May 2015 there were 5,712 professionally active physicians in Slovenia, approximately 2.8 per 1000 population. The number of nurses (8.2 per 1000 population in 2012) is slightly above the EU28 average (8.0) and has increased by 1.5 per 1000 population since 2000. Slovenia has a fairly high nurse to doctor ratio (3.2 nurses per doctor), well above the EU average. The comparatively larger nursing supply makes the total density of both physicians and nurses appears high when compared to other central and south-eastern European countries. The average number of pharmacists per 1000 inhabitants in the EU Member States is 0.74 while in Slovenia the average is only 0.55, including pharmacists employed in the health care sector, HIIS, National Institute for Public Health and National Laboratory for Health, Environment and Food (OECD, 2015).

**Fig. 35: Physicians and nurses per 100,000 population across Europe, latest available year**

Source: WHO, 2015
Within Slovenia, health sector employment is relatively low compared to other public sectors. There are fewer people working in health compared to education and public administration, though more people are employed in health than in social work (Figure 36). Correspondingly, the number of hours worked by health workers is also quite low, below the EU average.

**Fig. 36: Shares of employment in public service activities in total employment in Slovenia and in the EU, in persons and in hours worked, 2013**

Despite relatively low supply of health workers, growth in employment has been on par with the EU average since the crisis (Figure 37). Before the crisis, growth was slower, at 1.6% average annual growth compared to 2.0% average annual growth in the EU between 2000 and 2008.

Source: Eurostat, SURN; calculations by IMAD. Notes: Shares in total employment according to national accounts.
Health sector salaries increased in the 2008 reform but have not kept pace with other sectors since that time

As mentioned throughout this report, a key reason behind the overall increase in spending in 2008 just preceding the crisis is the public sector salary reform. In 2008, a new public sector wage system was initiated to replace separate collective bargaining at the level of individual professional groups with centralised collective bargaining at the level of whole public sector. The intention was to improve transparency and equalise wage levels across comparable positions. In the short-term, this led to a one-time spike in the salary levels of health workers. According to Eurostat data, government compensation of health employees grew by 15.3% in 2008 and 11.2% in 2009, but then grew by less than 1% per year (or declined) through 2012. Growth in 2013, however, was positive, at 6.1%. Compared to other EU countries, health sector compensation makes up a fairly large share of GDP (Figure 38).
To understand how health worker salaries compare to other types of workers in Slovenia, we compare growth in monthly gross earnings using January 2005 as a base (Figure 39). We can see that while health workers earn higher monthly salaries than other types of workers (all activity workers earn an average of €1,515.98 per month, while health workers earn €1,850.04 per month as of February 2015), growth in earnings for health workers has not kept up with earnings growth in other activities. Although the 2008 salary reform served to correct this imbalance temporarily, since that time, health worker earnings have consistently grown more slowly than earnings overall. On the one hand this is due to austerity measures taken in the public sector between 2009 and 2015, and on the other, due to a minimum wage increase in 2010 and employment structure changes during the crisis caused by laying off employees with the lowest wages; both of the latter factors positively affected wage growth in private sector.
Compared to different types of workers, employees in the health and social work sector do not have particularly high earnings (Figure 40). As of 2012, these workers, overall, earned above average salaries; however, they earned less than workers in the following fields:

- Electricity, gas, steam, air conditioning supply;
- Financial and insurance activities;
- Information and communication;
- Mining and quarrying;
- Public administration, defence; compulsory social security; and
- Professional, scientific, technical activities.
However, this masks considerable variation in the costs of labour, particularly across types of health workers. According to OECD health statistics (data not shown), while GPs and specialists earned approximately 2.3 times the average wage in Slovenia in 2012, nurses – who make up a large share of health employment – earn just 97% of the average wage. Even for physicians however, this figure is not particularly high compared to other countries. Out of 18 countries with data available, Slovenia had the 12th highest specialist income to average wage ratio.

Additionally, across public hospitals, pharmacies, primary care public health centres, and other public health centres, total wages (including overtime) consumed 47.5% of total expenditures in 2014. This varies substantially (although not unexpectedly) across types of providers, from a low of 11.2% in public pharmacies to a high of 69.2% in primary care public health centres. However, since 2008, when total wages comprised 44.5% of expenditures, a greater percentage of expenditure has been spent on labour costs.

The increased share of expenditures going to labour has not occurred as a result of excessive or continuous growth in total wages. Although there was positive total wage growth in 2008 and 2009, spending on wages has been fairly stagnant since 2010 (Figure 41). During this time, the total wage share of expenditures has still increased by nearly a percentage point (from 46.6% in 2010 to 47.5% in 2014).
Fig. 41 Growth in health wages and overtime, 2007-2014

Source: Statement of revenue and expenditures by cash flow, The Agency of the Republic of Slovenia for Public Legal Records and Related Services

There may be concerns, particularly due to the relatively low supply of physicians, that one reason for growth in spending on labour could be increased spending on overtime. Paying a physician to work overtime can be expensive; rates depend on salary grade and other bonus factors, including:

- bonus for overtime work that is determined by the Collective agreement for public sector (30 %);
- bonus for night work 15 %;
- bonus for Sunday work 37.5 %; and
- bonus for holiday work 45%.

Table 8 provides examples of how overtime payments are calculated.
### Table 8: Examples of overtime payment calculations

<table>
<thead>
<tr>
<th>Salary + overtime (per month)</th>
<th>Monthly basic salary</th>
<th>Basic salary per hour</th>
<th>16** hour overtime on working days (Monday to Saturday) including 7 hours of work at night</th>
<th>16 hours overtime on Sunday, including 7 hours of work at night</th>
<th>Total 32 hour overtime***</th>
<th>Total (basic salary and overtime work)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>1</td>
<td>2=1/174 hours</td>
<td>3</td>
<td>4</td>
<td>5=3+4</td>
<td>6=1+5</td>
</tr>
<tr>
<td>Specialist doctor - 57 salary grade*</td>
<td>3,814 €</td>
<td>22 €</td>
<td>479 €</td>
<td>615 €</td>
<td>1,094 €</td>
<td>4,908 €</td>
</tr>
<tr>
<td>Specialist doctor - 50 salary grade</td>
<td>2,930 €</td>
<td>17 €</td>
<td>368 €</td>
<td>472 €</td>
<td>840 €</td>
<td>3,770 €</td>
</tr>
<tr>
<td>Trainee specialist - 45 salary grade</td>
<td>2,422 €</td>
<td>14 €</td>
<td>304 €</td>
<td>390 €</td>
<td>694 €</td>
<td>3,116 €</td>
</tr>
<tr>
<td>Trainee specialist - 40 salary grade</td>
<td>2,001 €</td>
<td>12 €</td>
<td>251 €</td>
<td>322 €</td>
<td>574 €</td>
<td>2,575 €</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>2,792 €</td>
<td>16 €</td>
<td>351 €</td>
<td>450 €</td>
<td>800 €</td>
<td>3,592 €</td>
</tr>
</tbody>
</table>

Notes:
*Maximum salary grade for doctors
**16 hours overtime is the maximum allowed by law in 2 consecutive working days
***32 hours overtime is the maximum allowed by law of uninterrupted working time

Most overtime occurs in public hospitals (nearly 80%), with primary care making up almost all of the rest. However, it appears that the slowdown in wage growth during the crisis is not compensated for by increases in overtime payments, at least in aggregate. One important reason is that overtime payments make up just a small percentage of total wages. Between 2006 and 2014, the year with the largest percentage of total wages spent on overtime payments was 2009, when it was 8.6%; this was mostly due to a large increase in overtime payments that resulted from the salary reform. Since then, the percentage of total wages spent on overtime has declined in every year, reaching 6.7% in 2014. This decline in the share of total expenditures spent on overtime has come at a time of declining wage growth when one might expect health workers to seek additional overtime hours, which makes it unlikely that overtime is commonly used to compensate for declining wages. Indeed, subtracting overtime payments from total wages has a negligible effect on wage growth, as shown above in Figure 41.

Nevertheless, overtime payments could have an impact on expenditures in the future, as a large amount of overtime work currently goes unpaid. As of January 31, 2015 over half a million overtime hours had remained unpaid. This affects 14,328 workers for an average of 38.7 extra hours worked but not remunerated. Interestingly, more than half of these workers with unpaid overtime are nurses, who already have relatively low salaries and make up a large portion of
the workforce. Many unpaid overtime hours are also for non-medical workers who, correspondingly, are likely paid low wages.

A possible explanation for the prevalence of overtime work could be the slightly higher incidence of sick leave in the health care sector compared to other areas of the public sector. For example, according to data from the National Institute of Public Health, the average health care worker spent 4.5% of their planned work-time in 2014 on sick leave, whereas across the public sector, only 3.7% of work-time was spent absent due to illness.

**Capital investment has historically been irregular**

Capital investment has historically varied as a share of total health spending. Before the crisis, according to NHA data, the share varied around 5.5%, while during crisis it fell to around 4.5% of total health expenditure (EU average in 2013 was 3.6% of total health expenditure). Most capital formation is undertaken by the general government (with very little paid for by HIIS) and around one third is paid for by the private sector. According to the most recent data available, the share of total government spending on gross capital formation that goes to the health sector is 7.6% - just below the EU average of 8.1% (**Figure 42**).

**Fig. 42: Government expenditure for gross fixed capital formation in health as % of total government expenditure for gross fixed capital formation, 2013**

![Graph showing government expenditure for gross fixed capital formation in health as % of total government expenditure for gross fixed capital formation, 2013.](image)

Source: Eurostat, 2015 according to COFOG methodology

However, it is difficult to compare cross-sectional data on capital formation expenditure because there are often large changes in growth of capital investment from year to year. For example, capital formation increased 36.8% in 2008 and decreasing 49.4% in 2010. In 2012,
capital investment accounted for only around 5% of total health expenditure, which is slightly above the average among OECD countries with data available in the last 5 years (4.2%). In Slovenia, most of this investment each year has gone to hospitals, followed by ambulatory health care (Figure 43).

**Fig. 43: Distribution of Capital formation expenditure in the health sector, 2003-2013**

![Graph showing distribution of capital formation expenditure in the health sector, 2003-2013](image)

Source: OECD Health Data 2015 (NHA);)

Note: In Slovenia nursing homes are not included in nursing and residential care facilities, despite the fact that most of long-term nursing care in Slovenia is provided in nursing homes. Therefore, there is no capital formation in nursing and residential care facilities (HP.2).

According to data from financial statements, within public hospitals, from 2006 to 2010 most investment was to purchase equipment (Figure 44). However, in 2011 through 2014, spending on equipment decreased substantially. In its place, there was an increase in new construction, reconstruction and restoration. This increase in new construction was not maintained, however, and the level of spending declined drastically in 2013 (-63.3%) and 2014 (-25.5%). Some depreciation is accounted for in HIIS contracts with public hospitals. In 2013, among public hospitals reporting to the Ministry of Health, approximately only 160,000 EUR in estimated depreciation was not compensated.
Fig. 44: Distribution of capital expenditure within public hospitals

Although there was an increase between 2012 and 2013 in capital formation, many investment projects in Slovenia have gone uncompleted due to a lack of resources. Therefore, one consequence of the irregular levels of capital investment is that there is variability in hospitals in terms of their modernity: 10 of 26 hospitals have yet to be modernized to be more energy efficient. There is also considerable variation in the amount spent on utilities (water, electricity, gas), ranging from €17.3 per m² to €117.1 per m² in 2013. While the highest costs were in the Institute of Oncology in Ljubljana and therefore likely due to running expensive medical equipment, some of the variation may reflect differences in capital investment in energy efficient technology.

Space in facilities is not always utilized effectively, though it is difficult to say the reasons for this based on available information. The facility with the worst use of space uses only 47.8% of its available space for health care activities much less compared to the hospital that uses the most space for health care activities, 85%. Across all hospitals, there is only a small positive correlation between use of available space and cost of energy per m², (correlation=0.119) implying that using more space does not imply significantly greater overhead costs.

In terms of capital expenditures on equipment, Slovenia has comparatively low density of medical imaging equipment. Although data on medical imaging technology are notoriously difficult to compare, in 2013, there were only 1.2 CT scanners per 100,000 population and even fewer MRIs (0.87 per 100,000). There were 33.2 MRI scans per 1000 population in Slovenia in
2012, well below the OECD average of 50.6 per 1000 population using data for countries reporting. Slovenia also had 52.6 CT exams per 1000 population though the data only reflects hospitals; other countries only reporting hospital CT scans include the UK (75.7 scans), Portugal (132.1 scans), Ireland (71.3 scans), Austria (133.4 scans) and New Zealand (26.7 scans). Likewise, depreciation expenses of medical equipment in public hospitals have increased considerably, rising from €335 million in 2007 to €533 million in 2014. Taken together, it would appear that there is a deficiency of investment in medical equipment in Slovenia.

**Implications of recent and future trends**

The crisis has had a profound effect on revenue generation and expenditure in the Slovene health sector and across the government as a whole. Declines in economic activity and employment have led to lower social insurance contributions and to compensate, the HIIS has taken measures to reduce its expenditures. These mostly include reducing the prices paid for care, shifting costs onto complementary health insurance, and delaying payments until funds are available.

Expenditure reductions have in fact been more substantial than revenue reductions to date, which in 2014 led to a surplus for HIIS (Figure 45). This is not so uncommon historically, though there had not been a substantial surplus since 2007, when the HIIS surplus increased from €14.5 million in 2006 to €65.2 million. This contributed significantly to the accumulation of reserves which is an important source for counter-cyclical spending on health during economic downturn.

At least 25% of a yearly surplus is dedicated to a reserve fund. It is formed before the balance sheets are closed, and as a result represents outcomes for the current year. Between 2004 and 2014 there was some money in reserves in all years other than 2012 and 2013, when the reserves from former years were depleted. Whether HIIS continues to run a surplus from 2015 onwards will depend on the state of the economy (in the case of revenue generation) and the potential to continue reducing public expenditures through price reductions and cost shifting.
**Fig. 45: HIIS Surplus/Deficit and Reserves**

![Graph showing HIIS Surplus/Deficit and Reserves from 2004 to 2014.](image)

Source: HIIS, 2015

**Projections for economic activity suggest a return to modest positive growth for social contributions**

Economic activity is the key determinant of revenues for the health sector. Projections of GDP, employment and gross wages suggest that Slovenia’s economy has already begun to improve following the crisis (Figure 46). The expectations for 2015-2017 are that real GDP will continue to grow, though at a slightly lower annual average rate of around 2.1% in the period 2015-2017 (IMAD). Unemployment rates are expected to have peaked in 2013 and are projected to continue to decline steadily, reaching 7.9% by 2017. While this is above the historical pre-crisis average since 2000, it should lead to modest positive growth in revenues as social contributions from employees increase. Likewise, projections of wage growth also indicate a turnaround that again is more tempered compared to the pre-crisis period.
Projections made by HIIS are also consistent with this simple assessment (Figure 47). While revenue growth is anticipated to slow in 2015 relative to 2014, the overall expectation is that revenue (and expenditure) will grow at approximately 3.0% per year from 2016 through 2020 as the economy improves.
Expenditure growth will depend on political decisions and the resources available to HIIS

Because HIIS is unable to go into debt, health care expenditure growth in Slovenia in aggregate is almost entirely dependent on the revenues available to HIIS in a given year. Because of reductions to revenues, the overall approach in recent years has been to reduce prices, to shift costs onto CHI to maintain the volume of services and to delay payments to providers. However, reduced prices meant that a number of hospitals generated losses in recent years; it may not be feasible to reduce prices much more without carefully evaluating hospital finances and management capacity.

The expectation by HIIS is that expenditures will continue to grow at less than 3% per year through 2020. While it may be possible to achieve, this is much slower than average annual growth between 2004 and 2007 (4.7%) prior to both the crisis and the salary reform. HIIS should be prepared and have sufficient resources to afford higher expenditure growth than what is currently projected.
Changing demographics present some additional challenges for public sector revenues and expenditure

Demographic changes have consequences for public finances and in particular, for the health sector, pensions, and long-term care. However, ageing by itself only contributes a small amount to aggregate growth in the health sector (Rechel et al, 2013), whereas the effect of non-demographic factors, such as increases in health sector prices and technological advancements, are much more important determinants.

As of 2015, Slovenia is estimated to have the 17th largest population over 65 years out of 31 European countries: 17.9% of the population is over 65, compared to the EU average of 18.9% (Figure 48). However, under the main projection scenario from Eurostat, the ageing of Slovenia’s population is expected to outpace the European average. By 2020, Slovenia will be on par with the EU average (20.4% of the population over 65) and rank 10th among the 31 European countries. Slovenia’s over 65 population will be the 7th largest in Europe in 2040 and peak in 2050 when people over 65 will make up 29.8% of the population. These projections are dependent on various factors, including longevity, migration, and fertility.

Fig. 48: Proportion of population aged 65 and over and aged 80 and over, Slovenia and EU-28

Source: Eurostat, 2015
Older populations have important implications for social protection systems in general – not only the health sector. In terms of health system revenues, older populations contribute less per person to HIIS than the employed. Without increasing the tax funding component of the health financing system or significant gains in employment and wage growth to counterbalance the growing older population, this will put downwards pressures on revenue generated through social insurance contributions.

Forecasts by the Aging Working Group (AWG) 2015 indicate that between 2013 and 2060, given the baseline scenario, age-related health care spending in Slovenia is expected to consume 1.2 additional percentage points of GDP; age-related long-term care spending is expected to consume 1.5 additional percentage points of GDP (Table 9). Out of 28 EU countries, Slovenia ranks 10th worst in terms of the burden of ageing-related health care relative to GDP between 2013 and 2060, and 7th worst in terms of its ageing-related burden for long-term care. It is important to note that the baseline projections of long-term care only assume the effects of changes in demographic structure and the assumption that 50% of projected gains in life expectancy are spent without disability (i.e. without demanding for care). It means that baseline projections do not take into account any policy change in the qualifying rules for different long-term care services in the current system. Similarly, projections for health care expenditure assume only the effects of ageing, the assumption that one half of remaining years of life we will live in good health and income elasticity of 1.1 which takes into account only very moderate effect of non-demographic factors. However, accounting for a stronger impact of non-demographic factors (e.g. changes in technology, medical prices, employment, etc.) in the AWG risk scenario, Slovenia ranks 12th worst in health care relative to GDP and 16th worst in long-term care relative to GDP. Of note, these 2015 projections are slightly more pessimistic than those that were completed in 2012, primarily as a result of new demographic projections.
Table 9: Aging Working Group 2015 Projections of health and LTC spending as a share of GDP, with contribution of ageing between 2013-2060, reference and risk scenarios for Slovenia and EU

<table>
<thead>
<tr>
<th></th>
<th>Health care spending as % of GDP</th>
<th>Long-term care spending as % of GDP</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>AWG reference scenario</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2013</td>
<td>2015</td>
</tr>
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<td>Slovenia</td>
<td>5.7</td>
<td>5.7</td>
</tr>
<tr>
<td>EU</td>
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<td>7.0</td>
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<tr>
<td></td>
<td>AWG risk scenario</td>
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<td>7.1</td>
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<tr>
<td></td>
<td>Long-term care spending as % of GDP</td>
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<tr>
<td></td>
<td>AWG reference scenario</td>
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<td>Slovenia</td>
<td>5.7</td>
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</tr>
<tr>
<td>EU</td>
<td>6.9</td>
<td>7.0</td>
</tr>
<tr>
<td></td>
<td>AWG risk scenario</td>
<td></td>
</tr>
<tr>
<td>Slovenia</td>
<td>1.4</td>
<td>1.5</td>
</tr>
<tr>
<td>EU</td>
<td>1.6</td>
<td>1.7</td>
</tr>
</tbody>
</table>

Source: European Commission, 2015

Summary of key findings

This review finds that the economic crisis revealed the susceptibility of the health system to fluctuations in social insurance contributions. Social insurance contributions declined during the crisis because of lower wage growth, increases in the share of inactive enrolees who make comparatively low monthly contributions, high unemployment and insufficient counter-cyclical arrangements of the health financing system. The slowdown in revenue growth for HIIS was more pronounced than growth in total government revenues – between 2005 and 2013 total government revenues as a share of GDP increased by 1.8 percentage points, while HIIS revenues increased by only 0.3 percentage points. Health care spending by central and local governments remains low by EU standards, despite slight increases in spending in recent years.

Health care expenditures are linked closely to HIIS revenues, since HIIS must be financed without any borrowing from the central government and without increases in insurance contribution rates. Nevertheless, despite fewer resources, the mix and volume of services purchased has not changed notably throughout the last few years; in fact, HIIS has continued to pay for items that it did not fund in years prior to the crisis, such as provider training and
specializations, and has also had to cover higher VAT rates. Savings measures were adopted with the aim of preserving the level of health-care programmes and accessibility of services. The volume of services was maintained by decreasing prices, delaying payments, and shifting costs onto complementary health insurers. These complementary health insurers have remained profitable throughout most of the crisis, though the profits amount to only a small share of total health expenditures (around 0.3% of total health expenditures in 2014); private insurers have also protected households from experiencing catastrophic expenditures and to a small extent, subsidized public providers. However, there is evidence of longer waiting times and a number of providers have suffered losses, with some requiring loans from the public treasury to maintain supply. Better provider data is needed to comprehensively assess how provider performance has been affected by expenditure reductions, as well as to identify areas for efficiency gains. Health worker salaries are not particularly high overall, but this is generally due to low salaries for nurses and other non-physician workers; there are concerns regarding overtime payments, and while these are fairly high, they make up only a small share of expenditures.

According to current baseline forecasts, ageing is expected to lead to larger increases in health and long-term care expenditure relative to GDP as compared to the EU-28 average. In the long-term, due to increasing demand and slow growth in revenues from social insurance contributions, there will be a need to either find alternative sources of revenue, to reduce the basket of services provided by HIIS, or to cut prices continuously to maintain volume and quality of care.
References


