Do We Spend Too Much on Medications?

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The Government recently announced that the problem of debts of hospitals to wholesale pharmacies is about to be solved in a systematic manner. The present press release, after presenting a short analysis of the consumption of medications in Croatia, highlights the necessity of recording more detailed and transparent statistical data on expenditures in the Croatian healthcare system, primarily in hospital care. Apart from this, we should analyse the market of particularly expensive medications and explore how the constant increase of public expenditure for medications can be controlled without undermining the quality of healthcare.

Representatives of the Government and wholesale pharmacies recently reached an agreement that the Croatian Health Insurance Fund (Hrvatski zavod za zdravstveno osiguranje - HZZO) would disburse HRK 500 million from the State Treasury in order to pay off a section of the debt owed to wholesale pharmacies which, according to latest data, stands at more than HRK 4.2 billion. It has become common practice that hospitals keep accumulating their debts, while wholesale pharmacies patiently wait for the intervention of the Ministry of Finance, which they always end up receiving. In 2018, the Institute of Public Finance published an analysis of the medicinal products market and the financial position of pharmaceutical companies in the Republic of Croatia. It was emphasised in this analysis that hospitals should reduce their outstanding commitments by rationalising their operations, but also that business operations of companies in the segment of wholesale and retail of medications (especially pharmacies) should be analysed more thoroughly.

Table 1 Consumption of medications in Croatia, 2014-2019

| Year | Total consumption of medications (in HRK billion) | Consumption of medications funded through HZZO (in HRK billion) | Share of particularly expensive medications in HZZO’s total expenditures for medications (in %) | Share of HZZO’s expenditures for medications in HZZO’s total expenditures for healthcare (in %) | Share of total consumption of medications in GDP (in %) |
|------|---------------------------------|---------------------------------|-------------------------------------------------|-------------------------------------------------|---------------------------------|
| 2014 | 5.0                             | 3.9                             | 16.3                                            | 19.2                                            | 1.51                             |
| 2015 | 5.3                             | 3.9                             | 19.4                                            | 19.2                                            | 1.55                             |
| 2016 | 5.8                             | 4.1                             | 22.6                                            | 20.4                                            | 1.65                             |
| 2017 | 6.1                             | 4.5                             | 25.8                                            | 21.7                                            | 1.67                             |
| 2018 | 6.6                             | 4.8                             | 30.2                                            | 22.5                                            | 1.73                             |
| 2019 | 7.6                             | 5.6                             | 34.2                                            | 24.0                                            | 1.90                             |

Source of data: HALMED, HZZO, Croatian Bureau of Statistics and the author’s own calculations.

* Numbers regarding the total consumption of medications in 2019 are preliminary and unofficial. HALMED’s official data will be published in late August 2020.

The previous analysis clarified how the pharmaceutical market in Croatia functions, especially how prices of medications are determined, while here we will take a brief look at the consumption of medications. Figures on the consumption of medications in Croatia can be found in the annual reports published by HZZO and the Agency for Medications and Medical Devices of Croatia (Hrvatska agencija za lijekove i medicinske proizvode - HALMED). HZZO publishes figures on expenditures for prescription medications.
and particularly expensive medications, while HALMED monitors the total turnover of medications. Selected indicators for the 2014-2019 period are presented in Table 1.

Unofficial data show that HRK 7.6 billion worth of medications were consumed in 2019. According to the published annual report, HZZO’s expenditures for medications amounted to HRK 5.6 billion. Below we present some trends for the period 2014-2019 and additional indicators from HALMED’s report:

- consumption of medications (in HRK) was on the rise in the observed period; an especially high increase was evident in the share of particularly expensive medications in HZZO’s total expenditures for medications (from 16% in 2016 to 34% in 2019);
- the share of HZZO’s expenditures for medications in HZZO’s total expenditures for healthcare increased from 19% to 24%;
- the share of total consumption of medications in the GDP increased from 1.5% to 1.9%;
- around three-quarters of the total value of consumed medications pertains to expenditures for medications financed by HZZO;
- the share of expenditures for over-the-counter medications in the total consumption in 2018 amounted to 8%;
- hospital consumption of medications makes up around 40% of the total value of consumed medications (see HALMED’s 2018 Report);
- medications for treating malignant diseases and immunomodulators made up one-quarter of the total consumption of medications in 2018 and also recorded the biggest growth in consumption.

The rise of expenditures for particularly expensive medications is not surprising since the market is being overwhelmed with newly registered innovative, and at the same time very expensive, medications, which HZZO keeps adding to the list of medications financed from compulsory health insurance. At the same time, the number of consumers of these medications is also on the rise. All countries will soon be faced with the challenge of how to provide access to such medications for their patients but at the same time control the rise of expenditures and also ensure that the selected medications deliver good clinical results with regard to the money spent, i.e. that their use is justified.

The consumption of medications in Croatia should be observed in the international context (Graph 1). OECD data on the consumption of medications does not include hospital consumption, which means that Croatia and other countries would be ranked very much differently if this item were included. At present, Croatia sits at the bottom of EU countries with USD 388 per capita (purchasing power parity).

**Graph 1 Consumption of medications per capita in USD (purchasing power parity) in 2018**

| Country     | Consumption per Capita (USD) |
|-------------|-------------------------------|
| Denmark     | 900                           |
| Croatia     | 100                           |
| Estonia     | 900                           |
| Romania     | 800                           |
| Portugal    | 700                           |
| Cyprus      | 600                           |
| Latvia      | 500                           |
| Czech Republic | 400                   |
| Spain       | 300                           |
| Lithuania   | 200                           |
| Sweden      | 100                           |
| Finland     | 100                           |
| Slovenia    | 100                           |
| Greece      | 100                           |
| Ireland     | 100                           |
| Bulgaria    | 100                           |
| Malta       | 100                           |
| Italy       | 100                           |
| Austria     | 100                           |
| France      | 100                           |
| Belgium     | 100                           |
| Germany     | 100                           |

Note: the data does not include hospital consumption. The figures for Malta pertain to 2017, while the Netherlands figures are from 2019. Source: OECD.

1 Figures on the consumption of medications published by HALMED are based on turnover data from all pharmacies, including hospital-based pharmacies, and specialised retail stores for medications in Croatia. Unlike data published by HZZO, HALMED’s figures also include over-the-counter (OTC) medications as well as prescription medications not listed by HZZO.
The only country with lower consumption is Denmark (USD 339), while Germany sits at the top of the ranking with USD 844 per capita. Denmark and the Netherlands are, by far, the most economically developed countries among the countries with the lowest consumption, with both of them introducing measures for rationalizing the consumption of medications.

However, were we to analyse the share of medications consumption in total healthcare expenditures (also excluding hospital consumption), Croatia would be near the top of the table with a relatively high share of 21% (Graph 2). Bulgaria tops the table, while the bottom is once again occupied by Denmark and the Netherlands. Even though there is no graph shown to support this, the share of medications consumption in GDP (excluding hospital consumption) exhibits the same pattern. For Croatia, this share in 2018 amounted to 1.4%, similar to Portugal, Spain and Romania, while in Denmark and the Netherlands it amounted to 0.7%.

**Graph 2 Share of medications consumption in total healthcare expenditures in 2018 (in %)**

Note: the data does not include hospital consumption. The figures for Malta pertain to 2017, while the Netherlands figures are from 2019. Source: OECD.

The rise in the consumption of medications per se is not a problem. The demand for medications is on the rise due to the spread of chronic diseases, population ageing and the emergence of new forms of treatment. However, we should explore how the funds for medications could be used in a more optimal manner, i.e. assess the efficacy of a medicinal product with regard to its price. This is precisely the aim of Pharmacoeconomics, a scientific field that is underdeveloped in Croatia. Research conducted in OECD countries suggested the following measures for limiting the increase of medications consumption: 1) reducing the prices of medications on the producers' end; 2) cutting wholesale and retail margins; 3) higher participation of users in the paying price; 4) revising the manner for defining the prices of medications; 5) monitoring the efficacy of medications and taking this into account when defining the prices; 6) switching to generic medications, when possible, etc.

Apart from the recommendations above, Croatia would benefit if HZZO started publishing more data on healthcare expenditures – primarily those related to hospital care. In addition, the market for particularly expensive medications should be explored in more detail to check the extent of use of the more cost-efficient generic medicines. Since Croatia does not fare well with regard to health indicators, such as cancer and cardiovascular disease mortality rate, it seems that it would be crucial to put in more effort in early detection and prevention of disease, which would also affect the level of medications consumption. The real question is not whether we spend too much or not enough, but rather whether we spend in an efficient manner. Previous research has shown that the Croatian health system is, to a large extent, inefficient.