

COMPARATIVE ANALYSIS OF EXPENDITURE ON PHARMACEUTICALS IN CZECHIA AND SLOVAKIA – HOW TO UNDERSTAND THE OECD STATISTICS

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Background

According to the OECD Health Statistics 2021, in Slovakia pharmaceuticals absorb a higher share of health expenditure, which was 24.4 % compared to the OECD average which was 15.1% in 2019 and 15.2% in the Czech Republic. Without detailed insight, however, such comparison can be misleading and hard to interpret. Since OECD statistics is widely used by key decision makers in policy debates, therefore it is crucial to understand underlying data input and the rationale for this selection so that informed decisions can be made.

Objective

The study objective is to dissect reasons for significant differences in OECD pharmaceutical spent indicator using the example of two countries which have a lot in common in terms pharmaceutical market performance. Those two countries are the Czech and Slovak Republic.

Methods

We have analyzed detailed bottom-up structure of pharmaceutical expenditure covered by government/compulsory health insurance schemes in Czechia and Slovakia according to drug spending patterns in 2019 (the latest complete statistics) – prescription drugs for outpatient care („prescribed/retail medicines“) and drugs used in specialized clinical centers (“hospital/non-retail medicines“). We have expressed the results in nominal values and as expenditure per capita in official reimbursed prices. The primary data sources were the national statistics (NCZI in Slovakia, SUKL in Czechia) and insurance fund statistics.

Additionally, the Statistical Office of the Slovak Republic was consulted to better understand origin and selection of input data describing expenditure on prescribed/retailed medicines reported to OECD. Based on the answers, we assessed whether there are any inaccuracies in the reporting.

Results

In 2019 public expenditure on pharmaceuticals per capita in Czechia and Slovakia was comparable – €264 in Czechia and €239 in Slovakia and also in both main categories – €175 in Czechia and €170 in Slovakia for retail and €90 in Czechia and €69 in Slovakia for hospital/retail medicines.

↓ Table 1. – Overview of pharmaceutical and health care expenditure statistics in Czechia and Slovakia in 2019

| CZ | SK |
|---|--|
| Hospital/non-retail medicines | |
| Centre-care drugs | A & AS labelled drugs |
| Specialty care products that can be used and dispensed only by selected health care providers. Data from distributors of pharmaceuticals. | Medicines in reimbursement list which are reimbursed as an add-on item to reimbursement for outpatient care. Data collected by National health information center from health insurance companies. |
| 953 993 350 € | 373 682 835 € |
| Prescribed/retail medicines | |
| Data from distributors of pharmaceuticals | Data collected by National health information center from health insurance companies |
| 1 861 434 518 € | 927 632 156 € |
| Hospital/non-retail medicines & retail medicines | |
| 2 815 427 868 € | 1 301 314 991 € |
| Prescribed/retail medicines (OECD) | |
| Data reported to OECD | Data reported to OECD |
| 1 479 965 955 € | 1 093 759 000 € |
| Expenditure on health (OECD) | |
| Government/compulsory schemes only | Government/compulsory schemes only |
| 14 351 623 247 € | 5 213 864 000 € |

Source: NCZI,¹ SUKL,² OECD³

↓ Table 2. – Overview of pharmaceutical and health care spent per capita in Czechia and Slovakia in 2019

| CZ | SK |
|---|--|
| Hospital/non-retail medicines | |
| Centre-care drugs | A & AS labelled drugs |
| Specialty care products that can be used and dispensed only by selected health care providers. Data from distributors of pharmaceuticals. | Medicines in reimbursement list which are reimbursed as an add-on item to reimbursement for outpatient care. Data collected by National health information center from health insurance companies. |
| 90 € | 69 € |
| Prescribed/retail medicines | |
| Data from distributors of pharmaceuticals | Data collected by National health information center from health insurance companies |
| 175 € | 170 € |
| Hospital/non-retail medicines & retail medicines | |
| 264 € | 239 € |
| Prescribed/retail medicines (OECD) | |
| Data reported to OECD | Data reported to OECD |
| 139 € | 201 € |
| Expenditure on health (OECD) | |
| Government/compulsory schemes only | Government/compulsory schemes only |
| 1 348 € | 956 € |

Source: NCZI,¹ SUKL,² OECD³

The total public expenditure on medicines in Czechia is roughly double compared to Slovakia (€2.8 mil. in Czechia vs. €1.3 mil. in Slovakia) which corresponds to the size of the population (5.5 mil. inhabitants in Slovakia and 10.6 mil. inhabitants in Czechia). However, total public expenditure on health care in Czechia was almost three times higher compared to Slovakia (€14.4 mil in Czechia vs. €5.2 mil in Slovakia). Thus, partly the different share of expenditure on medicines is due to disproportionate difference in total public expenditure on health care.

It was discovered that data on HC.5.1.1 “Prescribed/retail medicines“ reported to OECD by Slovakia have several flaws due to discrepancy in reporting as well as a different methodology for categorizing medicine into retail medicines or hospital/non-retail medicines in Czechia and Slovakia.

Government/compulsory schemes expenditure on prescribed/retail medicines was € 1 093.8 mil. in Slovakia and 37 993.7 mil. CZK (€1 480 mil.) in Czechia in 2019 based on the OECD Health Statistics.

Firstly, it was found that two health insurance companies report account HC.5.1.1 “Prescribed/retail medicines“ inaccurately in Slovakia.

Medicines delivered during a health care contact which were procured with centralized purchasing were incorrectly included into HC.5.1.1 account by two out of three companies. Due to this fact it was calculated that total expenditure on retail pharmaceuticals was overestimated by € 84.9 mil. (9.1% from retail pharmaceuticals reported to NCZI) in 2019.

All vaccine expenses (€ 23 mil. in 2019) were reported under HC.5.1.1, although according to the System of Health Accounts methodology vaccines used for prevention should be reported under HC.6.2. Immunization programs.

Secondly, it was found that different definition of hospital/non-retail medicines complicates comparability between Czechia and Slovakia as well as among EU states.

Status of top 20 retail medicines with the highest total public expenditure in Slovakia in 2019 was compared with status of the medicine in the Czech Republic. It was found that according to the Czech methodology, 12 out of 20 retail medicines with total expenditure € 90 mil. in Slovakia would be considered as hospital/non-retail medicines in Czechia. This means that these 12 retail medicines were reported under HC.5.1.1 on behalf of Slovakia but not on behalf of Czechia.

Based on the OECD Health Statistics, Slovakia was one of the countries with the highest share of expenditure on retail pharmaceuticals (HC.5.1.1) among selected OECD countries which is likely to contribute to high pharmaceutical spent indicator. Slovakia belongs to countries with a relatively low share of hospital/non-retail pharmaceuticals as a share of total pharmaceutical expenditure which is illustrated in figure 1 below because majority of pharmaceuticals are categorized as prescribed/retail medicines.

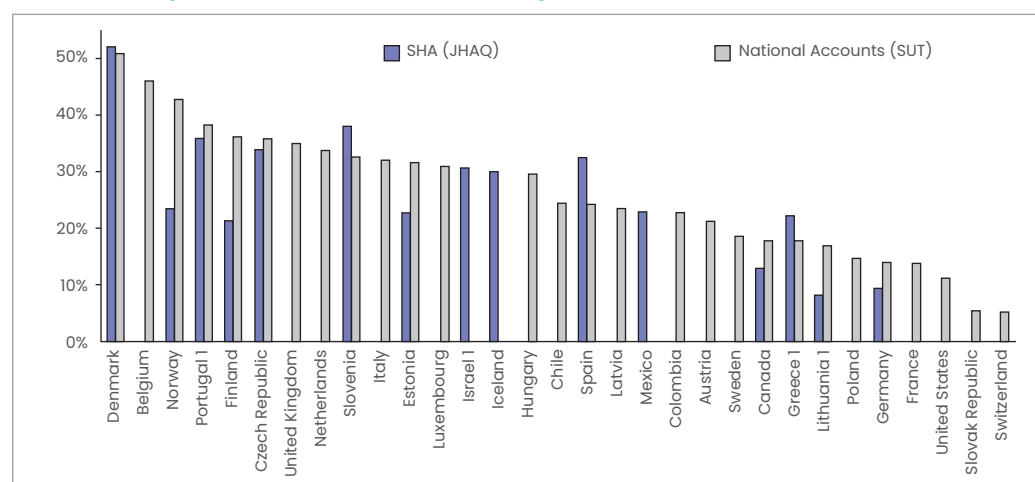
↓ Table 3. – List of top 20 retail pharmaceuticals in Slovakia in 2019 in terms of public expenditure, medicine status comparison – retail versus hospital/non-retail

| Rank | Brand name & supplement | SK status | CZ status |
|------|--|-----------|------------|
| 1. | Humira 40 mg injekčný roztok v naplnenom pere sol inj 2x0,4 ml/40 mg (napl.skl.pero) | Retail | Non-retail |
| 2. | Prolia sol inj 1x1 ml/60 mg (striek.inj.napl.skl.+chránič ihly v blistri) | Retail | Retail |
| 3. | GILENYA 0,5 mg tvrdé kapsuly cps dur 28x0,5 mg (blis.PVC/PVDC/Al, škatuľa) | Retail | Non-retail |
| 4. | Humira 40 mg injekčný roztok v naplnenej injekčnej striekačke sol inj 2x0,4 ml/40 mg (striek.skl.napl.) | Retail | Non-retail |
| 5. | IMBRUVICA 140 mg tvrdé kapsuly cps dur 90x140 mg (ff.HDPE) | Retail | Non-retail |
| 6. | ELIQUIS 5 mg filmom obalené tablety tbl film 60x5 mg (blis.PVC/PVDC/Al) | Retail | Retail |
| 7. | Maviret 100 mg/40 mg filmom obalené tablety tbl film 84 (4x21)x100 mg/40 mg (blis.PVC/PE/PCTFE/Al) | Retail | Non-retail |
| 8. | Xarelto 20 mg filmom obalené tablety tbl film 28x20 mg (blis.PP/Al) | Retail | Retail |
| 9. | Tecfidera 240 mg tvrdé gastrorezistentné kapsuly cps end 56x240 mg (blis.PVC/PE/PVDC-PVC/alu) | Retail | Non-retail |
| 10. | Pradaxa 150 mg tvrdé kapsuly cps dur 60x1x150 mg (blis.Al/Al) | Retail | Retail |
| 11. | Pradaxa cps dur 60x1x10 mg (blister) | Retail | Retail |
| 12. | ELIQUIS 2,5 mg filmom obalené tablety tbl film 60x2,5 mg (blis.PVC/PVDC/Al) | Retail | Retail |
| 13. | SUTENT cps dur 30x50 mg | Retail | Non-retail |
| 14. | Zytiga 250 mg tablety tbl 120x250 mg (ff.HDPE) | Retail | Non-retail |
| 15. | Cosentyx 150 mg injekčný roztok v naplnenom pere sol ira 2x1 ml/150 mg (striek.inj.skl. v pere SensoReady) | Retail | Non-retail |
| 16. | Tasigna 150 mg tvrdé kapsuly cps dur 120(3x40)x150 mg (blis.PVC/PVDC/Al) | Retail | Non-retail |
| 17. | Prevenar 13 sus inj 10x0,5 ml (striek.skl.napl.+ samost.ihly) | Vaccine | Retail |
| 18. | ALPHA D3 1 µg cps mol 90x1 µg (ffaš.) | Retail | Retail |
| 19. | Xtandi 40 mg filmom obalené tablety tbl film 112(4x28)x40 mg (blis.PVC/PCTFE/Al) | Retail | Non-retail |
| 20. | AUBAGIO 14 mg filmom obalené tablety tbl film 28x14 mg (blis.Al/Al) | Retail | Non-retail |

Source: NCZI,¹ MZ SR,² SUKL³

Across countries the share of pharmaceutical spending is not consistently distributed between the retail and non-retail sectors. Figure 1 from paper Morgan and Xiang (2022) shows differences in the share of non-retail spending between countries.⁵

↓ Figure 1. – „Non-retail“ spending on pharmaceuticals as a share of total expenditure on pharmaceutical, 2019 (or nearest year)



Source: OECD National Accounts Database Table 40; OECD Health Statistics 2021

Conclusions

Our analysis shows that the pharmaceutical expenditure covered by government/compulsory health insurance schemes according to specific categories expressed per capita is comparable between Czechia and Slovakia. However, we find a need to adjust the reporting methodology about spending on pharmaceuticals under HC.5.1.1 in Slovakia. Additionally, as the share of prescribed/retail and non-retail share differs across countries, it is recommended to start reporting total pharmaceutical expenditure indicator for all OECD countries which would help reconcile different definitions of pharmaceuticals reserved for hospital/non-retail use. This would provide a more complete understanding of overall pharmaceutical spending across the health sector and improve more robust cross-country comparison.

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Disclosures

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