THE INCREMENTAL COST-EFFECTIVENESS RATIO (ICER) THRESHOLDS IN CENTRAL AND EASTERN EUROPEAN COUNTRIES

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OBJECTIVES

The aim is to verify in which Central and Eastern European (CEE) countries the incremental costeffectiveness ratio (ICER) threshold is used to support reimbursement decisions. Our research also investigates how ICER thresholds are in relation to the gross domestic product (GDP) per capita in CEE countries.

METHODS

In-depth interviews among HTA experts were conducted. The study included 19 CEE countries: Albania, Bosnia and Hercegovina, Bulgaria, Croatia, Czech Republic, Estonia, Greece, Hungary, Latvia, Lithuania, Moldova, Montenegro, North Macedonia, Poland, Romania, Serbia, Slovakia, Slovenia and Ukraine. For each mentioned country, as available, the estimated ICER threshold was presented in two forms: as a value in EUR and converted into GDP fraction per capita. In countries where the ICER value is presented as a range (multiple ICER thresholds), the mean or middle value was calculated.

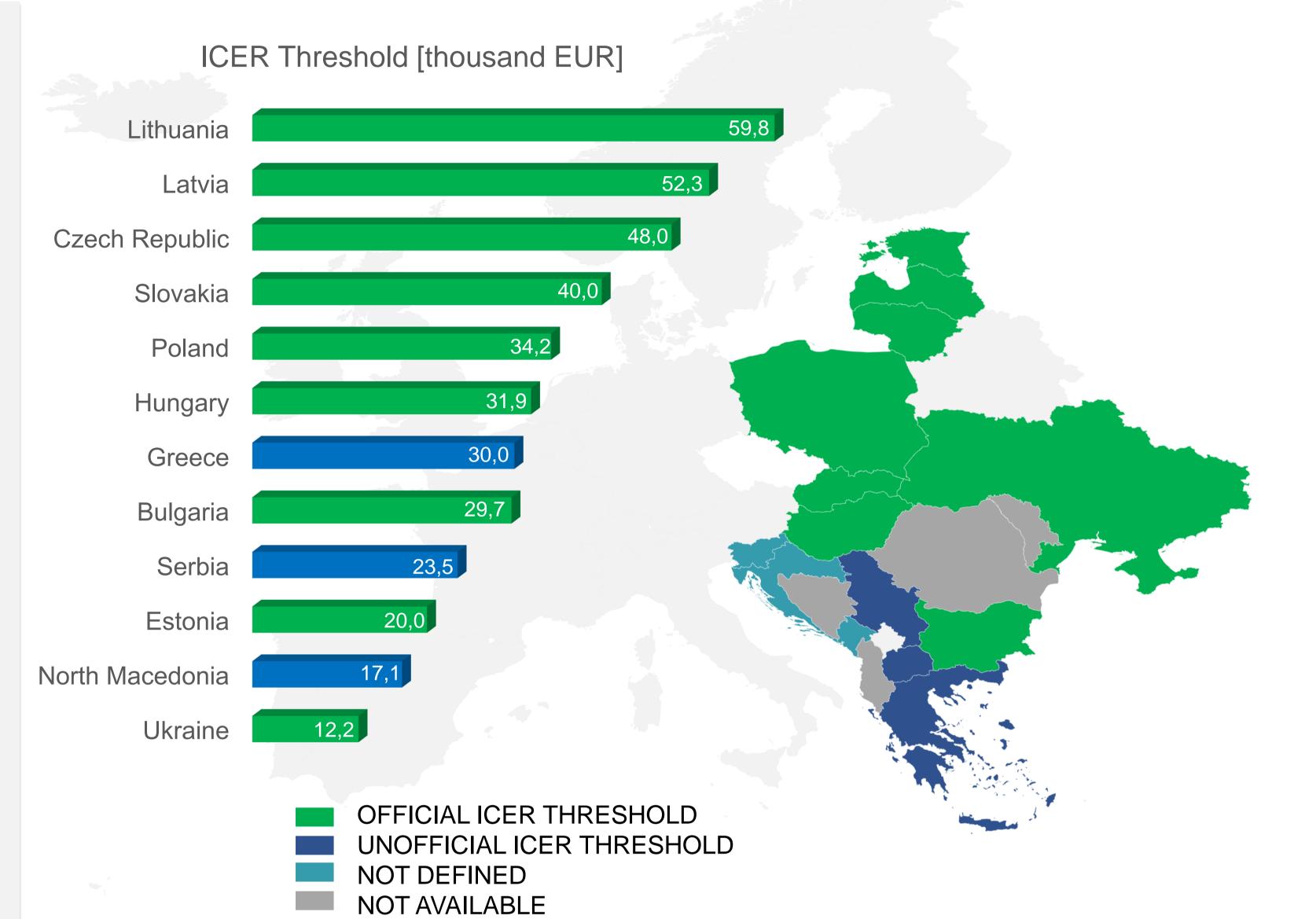
RESULTS

CONCLUSION

Most CEE countries have adopted mandatory cost-effectiveness analysis to support decision-makers – in 14 out of 19 analysed countries: Bulgaria, Czech Republic, Estonia, Greece, Hungary, Latvia, Lithuania, Montenegro, North Macedonia, Poland, Serbia, Slovakia, Slovenia, and Ukraine.

In eight countries cost-effectiveness threshold is official (Bulgaria, Czechia, Estonia, Hungary, Latvia, Lithuania, Poland and Slovakia), and four countries use it unofficially (Greece, North Macedonia, Serbia, Ukraine). Three countries (Croatia, Montenegro, Slovenia) despite mandatory cost-effectiveness analysis do not have a cost-effectiveness threshold defined (Figure 1). Some countries use multiple-level thresholds or scales as a reference for the ICER (Hungary and Lithuania, Slovakia). The main factors considered for using higher thresholds are the burden of the disease or additional health gain. The estimated ICER values are shown in Figure 1.

The role of ICER in making reimbursement decisions differs in the reviewed countries. In countries where meeting the cost-effectiveness threshold is obligatory, there are usually some exceptions for orphan drugs (e.g., Czech Republic and Latvia).



To compare the ICER thresholds between CEE countries we should also consider the health budget, which is mainly determined by the economic constraints of the country. As the health budget is not always published, we assume that GDP per capita is a good proxy indicator. Cost-effectiveness thresholds per GDP per capita vs. GDP per capita in EUR are presented in Figure 2.

Countries with low GDP per capita have the highest ICER threshold in relation to GDP per capita (3,00 in North Macedonia, Serbia, Bulgaria, and 2,96 in Ukraine), which suggests that these countries have set minor barriers to technologies to meet the requirement of being cost-effective. In CEE countries with higher GDP per capita, the ICER threshold is much lower in relation to GDP per capita (except for Lithuania), which suggests that these countries set the bar higher.

Figure 1. Mandatory cost-effectiveness analysis with ICER threshold value in 2021

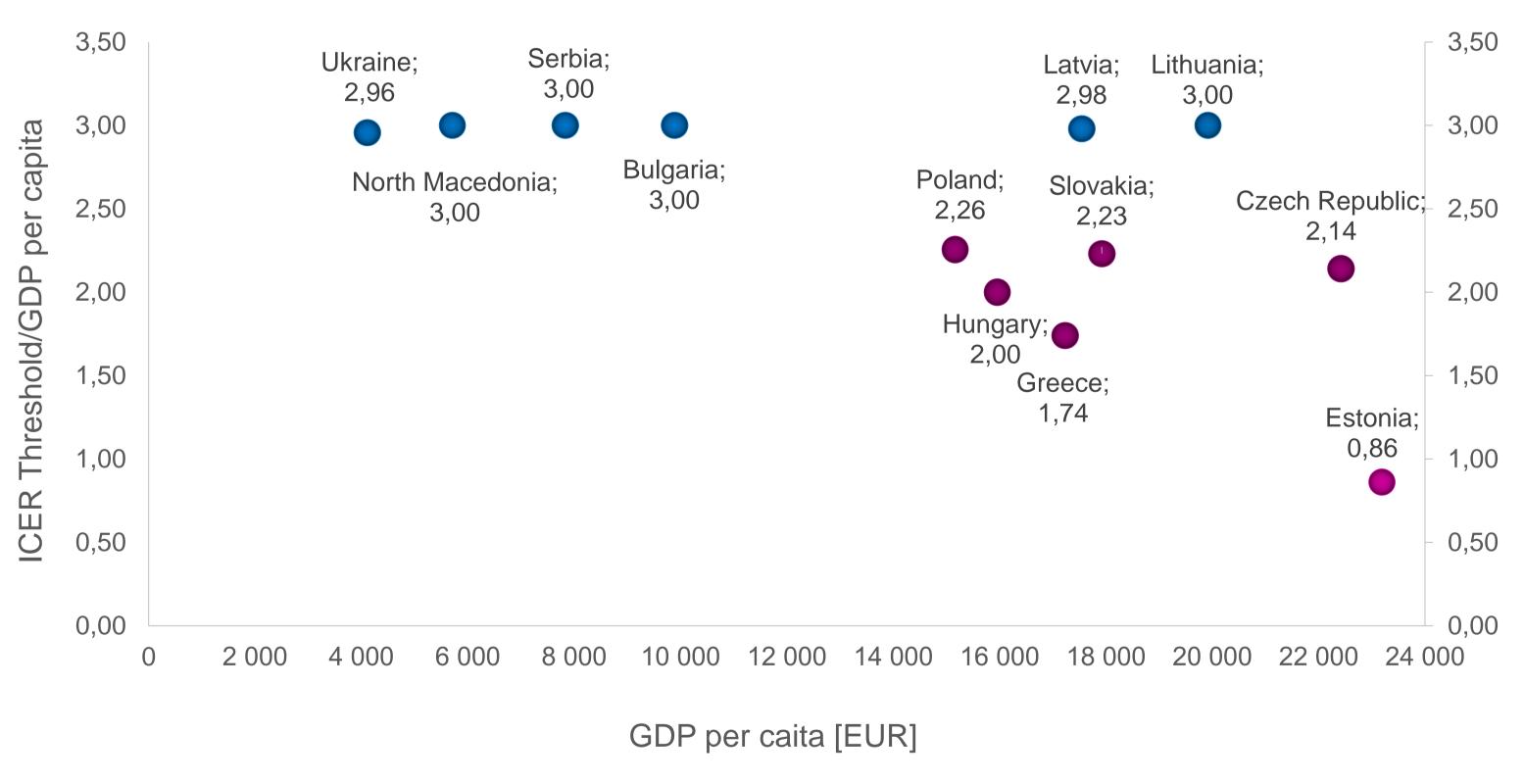
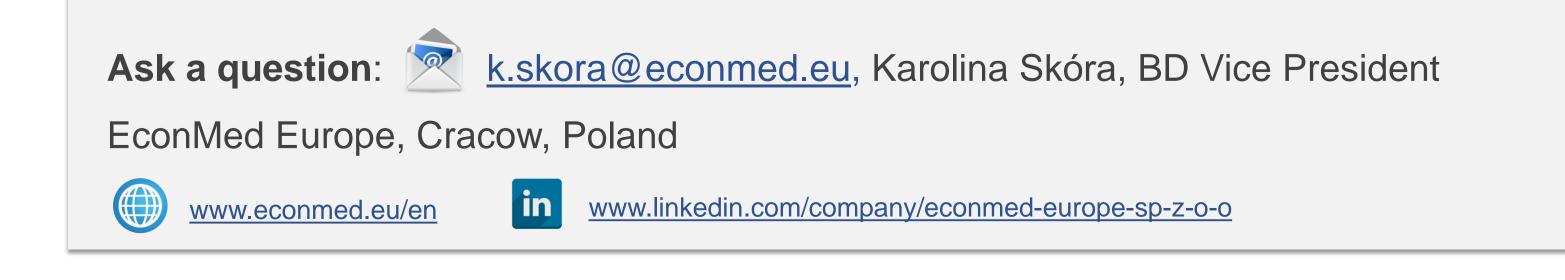


Figure 2. ICER threshold in relation to GDP per capita vs. GDP per capita

Among the countries that use the ICER threshold, its values and significance in the reimbursement decision-making process vary. In some countries, the cost-effectiveness threshold determines whether the gain from new technology is worth paying for, while in other countries this indicator only plays a supporting role in reimbursement decisions. ICER thresholds in relation to GDP per capita vary meaningfully between countries, nevertheless, higher values can be observed for countries with lower GDP per capita. ICER seems to be country-specific contingent on aspects not strictly related to gross domestic product per capita. All countries consider also other factors in the reimbursement decision process. However, without considering cost-effectiveness, it is difficult to optimize the funds allocated to drugs in the healthcare system.







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