SUMMARY

The health service (HS) is a sector affected by high inflation. It seems that finances (whatever amount) invested in this sector are quickly consumed. It is apparent from the economic index in developed countries that the need for **financial resources to effectively support the HS, rises faster than applicable economic resources in these countries.**

The biggest expense to the HS is drug purchasing. This expense grows faster than its inflation coefficient. If we compare drug expenses and economic growth in Western Europe between 1970 and 1990 we can see that expenses grew on average 4,1 % per annum, applicable economic resources only 2,7 %.[2)]

The Czech Republic was no different in an alarming growth of prescription drug use. Since 1989 there has been a dynamic growth in overall usage, while daily drug dose consumption dropped. [16)] In 2000, 40 billion CZK was spent on drugs (that is 27,6 % of the total cost of HS). [17)]

Luckily the representatives of associated developed countries realise this fact. Since 1950 the **economics of the health services (EHS)** has started to take shape. The EHS reveals and follows economic rules in the HS, offers economic analysis for finding the most beneficial allocations of financial resources and helps find the highest effectivity in the HS. The view on the economical essence of the HS and setting the guidelines for elaborating on individual analysis is **the main purpose of this dissertation.**

The dissertation in the first half of its theoretical guidelines **defines the basic ideas behind the EHS.** It describes the economic foundations of HS and explains why the HS is a sector where the market (an economic element) is failing. At the same time it outlines the steps that lead towards the stabilization of this poorly functioning market. It points out the inter-connectivity of the public sector with the HS and suggests trends of the modern HS of industrialized countries. It explains that the only way to evaluate health-care is to use an **active conceptual use pharmaco-economical analysis.** These analyses are being looked at in the second half of the theoretical analysis where individual analyses are characterised and described in detail so that they are more effectively elaborated upon.

The practical part elaborates on three examples of how to solve pharmaco-economic analyses.

A **cost - minimization analysis**, which is elaborated on by an economist, **compares the price development of oral contraception in The Czech Republic from 1ˢᵗ Jan. 2001 to 1ˢᵗ Jan. 2005.**

During that time the total of registered peroral contraception was 84, 46 of which were registered for the entire duration of this time. The average price of all registered contraception increased by 23% during the specified time. If we look closely at the price development we can see that the price of all the time registered contraceptives dropped by 3,6 % from Jan. 1ˢᵗ 2001 to Oct. 1ˢᵗ 2002. On the price list issued Feb. 1ˢᵗ 2004, 91% of all the time registered contraceptives kept or increased their price compared with the previous period. From Jan. 1ˢᵗ 2005, 91% of these contraceptives only increased in price. Similar development could also be seen in individual groups of contraceptives. Price increase is a trend that began Feb. 1ˢᵗ 2004 and continued in 2005. Within the specified time (May 1ˢᵗ 2004) The Czech Republic joined the EU and changed its VAT rate.

In addition to this cost - minimization analysis, **a questionnaire study** analysed the **level of influence of different factors that impact the decision of a woman while choosing her contraception.**

The top four influences were the advice of a woman's physician (93%), independently obtained qualified information (83%), references from friends (66%) and cost (63%). Company brochures and advertising in the press contributed less than 50% to influencing a woman's decision.

Cost - minimization analysis shows that on one hand the pharmaceutical companies are creating an economic environment in order to set prices for peroral contraception which reflects macroeconomic development. On the other hand women that use and pay for their contraceptives, consider their physician to be their biggest influence when deciding on a contraceptive (93%).

The first example of **cost-effectiveness analysis** was its application to the **long-term treatment of obesity in 2002.**

Analysis is based on the patient's point of view and shows that the patient using orlistat during a one year paid from CZK 632,- to 909,- for every 1 kg of weight loss (after deducting a placebo). The cost of sibutramin treatment was CZK 2698,- to 7722,- (after deducting the placebo) for 1 kg of weight loss. At the same time it shows that in placebo controlled studies, after one year (after deducting placebo effect) the greatest amount of weight loss was -3,81 kg with the orlistat treatment and -4,8 with sibutramin treatment.

Elaborated cost-effectiveness analysis shows a surprisingly high cost that the patient must pay for 1 kg of weight loss, while being treated for one year. Surely it would be ethical while prescribing these drugs to fully inform patients of these facts.

The second **cost-effectiveness analysis evaluated different regimes in treating Helicobacter pylori infection.**

In analysis (elaborated from the insurance company point of view) the most common and most effective variety of treatments were a combination of three different drugs published until 2004 in Pub Med database.

It revealed that the treatments most commonly used in The Czech Republic were cost-effective. For Helicobacter pylori treatment of 100 hypothetical patients using omeprazol – amoxicilin – klaritromycin an insurance company has to pay from CZK 87.408,- to 92.832,- while using omeprazol - klaritromycin –metronidazol costs are from CZK 61.296,- to 64.826,-.

The shown cost-effectivity can help when setting the price for each drug. And because the antibiotic sensitivity is constantly changing, it is very important to carry out pharmaco-economical analyses of eradication treatment of Helicobacter Pylori regularly so that insurance companies will only cover the most cost-effective treatments and so allocate their limited resources in the most efficient way.

Used examples of this dissertation show how pharmaco-economical analyses can help in **scanning price development and in comparing the cost-effectivity of different drugs and treatments.**

We can only hope that similar analyses will become routine in The Czech Republic. In the meantime no institution sees the potential of using those analyses in the Czech HS despite the fact that the Czech health-care system is suffering due to a lack of financial resources.