

# THE EARMARKED HEALTH TAX AS A RESOURCE FOR FINANCING UNIVERSAL HEALTH CARE IN CZECHIA

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## Abstract

The public health insurance system in Czechia has been created 25 years ago and the conditions have changed since then. Consumption of health care is universal and should not be segmented according to social groups. Therefore, this paper objective is showing the possibilities to streamline the financial flows and transform Czech social health insurance into the earmarked health tax. The paper shows how and why it can be done in income taxation and how the contribution for the stated insured persons could be changed in the future. Since general income taxation is also viable approach in some European countries, the paper makes a comparative analysis of those possibilities. The paper concludes with findings of the new elements that earmarked taxation approach brings to public policy and argues for their careful evaluation in practice.

## Keywords

Health Insurance, Health Tax, Universal Health Care System, General Taxation

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## I. Introduction

Health care financing has been the challenge for public finance and public policy because of ever rising costs and gaining higher shares of public budgets. Simultaneously it has to deal with the progress of medicine, e.g. availability of new methods of treatment and diagnostic techniques (medical inflation), especially in civilization diseases and prolonging human life. It also has a strong and highly visible social dimension in a view of illness as an undesired state of distress and suffering (Durdisová & Mertl, 2013) and character of social medicine as a scientific discipline (Holčík, 2009). Demand for health care is segmented and includes both realized and explicitly expressed demand, implicitly hidden demand, and even the need for unwanted health care (Mooney, 1992). The demand for health care suffers from market failures (Arrow, 1963; Akerlof, 1970) and adverse selection when purchasing health insurance (Cutler & Zeckhauser, 1997). This approach is rooted in the nature of health economics and health policy, where financing methods are closely connected with the institutional, social and medical aspects of the system and its governance (Jakubowski & Saltman, 2013). In this context, we perform the theoretically informed review of public health financing policy options and possibilities.

If we analyse the health care demanded by patients based on their budget constraints, we come to essential term of the elasticity of demand for health care. If being based on private spending, according to available evidence (Feldstein, 1971) it is rather inelastic, meaning that its reactivity to the price change is rather low and therefore it cannot be expected that the market structure grown on this demand will be flexible and perfectly competitive. Similarly, problems could be expected in the health insurance mechanisms (Feldstein, 1973), caused by parallel existence of direct demand based on out of pocket payments and indirect demand through health insurance, and also because of the existence of information asymmetry and adverse selection (Arrow, 1963).

The aim of this paper is to show the reasons and possibilities of transition from public health insurance contributions to the earmarked health tax as a dominant health care financing source in Czechia. Current system of Czech health insurance is a result of an experiment with return of

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multiple employment-based health insurance companies in the 1990's. However, the principle of employment-based health insurance currently does not currently comply with the reality of labour market with high mobility of employees, even among industry branches. Simultaneously in the system, the patients consume the majority of health care based on their needs. It means that their consumption is at least to some extent universalistic, has systemic definition and does not have individual limitation that could be tied to specific agreement with insurance company.

Current system also works with several categories of people, effectively segmenting citizens into four main social groups. This is facilitated by the fact, that when this system was introduced at the beginning of the 1990's, the employees were the only group that were supposed to carry the insurance payments, since other forms (such as self-employed people) only started to emerge. It also made sense to declare that the government will pay contributions for "state insured" people, so that the health insurance companies (health budget) will receive adequate total contributions. Based on this socio-economic background, this paper seeks to contribute to the ongoing public debate about health system settings and focuses on possibilities to finance the universally available health care in Czechia. We are aware that voluntary health systems extension financed from private resources can and should exist, but they are out of this paper's scope.

Scientific methods used to write this paper include macroeconomic evaluation of health system financial flows, public policy evaluation of health resources' settings in the Czech Republic, projection of suggested changes into health system construction and synthesis of observed trends from the health and social policy point of view.

## II. The state of research area and theoretical background

General social policy (Krebs, 2015), health policy and health economics theoretical background applies for this paper. The common principles of health economics (Arrow, 1963) are valid for discussing the reform steps and more prominently for the borders, which should not be crossed to maintain the system sustainable and socio-economically rational. On the specific principles of health insurance, the works of Němec (2008) provides the typology of health insurance systems available. The market for private health insurance suffers from market failure, which makes very difficult or even impossible for customers to obtain adequate health insurance according to their demand for health care function throughout their life cycle. Together with health equity and regional and social availability requirements, it leads to universal coverage of objectively needed health care financed by single-payer or multi-payer systems.

The health expenditures are not just a consumption, but at least significant parts of them could be considered as an investment (Suhrcke, et al., 2005; Figueras & McKee, 2012). As for the specific discussion of earmarked health taxes, the contributions of Doetinchem (2010) and the discussion of public policy at WHO (Prakongsai et al, 2008) and in Great Britain (Keable-Elliott, 2014) should be accounted. In addition, the current situation in the Czech health care system is being assessed (Mertl, 2011; Mertl, 2015).

Two levels of solidarity appear in health systems and are inevitable for sustainable financing of universal health care. The first level is based on the solidarity between rich and poor (solidarity in income), second one based on the solidarity between healthy and sick people (solidarity in health). The second level is even more important for sustainability than the first one. The reason is that the risks selection in health is ethically, economically and medically highly problematic and thus is not recommended to be allowed at all, targeting community rating in health insurance. The main reasons are ethical, medical, legal and economic and have been specified in more detail earlier (Mertl, 2011).

Health economics knows several methods of health care financing:

- general taxation,

- earmarked taxation (the hypothecation of taxes for health),
- social insurance,
- two-tiered health insurance (income-related and nominal premiums, currently only in Netherlands),
- private health insurance (currently usually highly regulated as an example of “Obamacare” in the USA shows),
- prepaid financing schemes,
- out-of-pocket payments (primarily regulatory effect in universal part of the system).

Various countries and health systems financing models use specific mix of those possibilities (Mossialos, et al., 2002). Every of them has its own logic, and in reality, they sometimes overlap or are used in parallel. Comparative analysis shows that no “one size fits all” or most effective approach exists (OECD, 2011). In addition, each of them has significant shortcomings that have to be minimized in order to gain a chance to their successful implementation. It also means that their theoretical anchors are sometimes modified when used in practice.

The volume of public health expenditure has been every year increasing in absolute terms and in Czechia in the year 2015, it has reached nearly 270 billion CZK (ÚZIS, 2016). Health expenditure is however very broad concept today. We finance research, technologies, buildings and health networks, drugs and medical professionals. Thus, unlike in the past, when the main goal was to finance a patient-doctor relationship and undergoing treatment often with palliative parts, nowadays we finance a crucial sector of national economy with significant synergic and spill over effects to the whole socio-economic system. Therefore, it makes sense to discuss how the universal part of the system will be financed within public budgets.

### III. The evolution of social health insurance

It seems that the classic social health insurance approach with defined payments and corresponding benefits for specific social groups as it was introduced in Germany at the end of the 19<sup>th</sup> century is not suitable for the health care system financing anymore. The universal character of health care consumption regardless of social group membership facilitates this. Simultaneously, the ceilings for the social health insurance payments have little sense because of the health consumption universality (Vostatek, 2010). The conditions were different then, we can note that it was combined with sickness insurance and it was meant primarily as a limited financial reimbursement for health care expenditure (Vostatek, 2000), whereas now health care consumption has mainly contribution in kind character.

At the same time, our goal is to preserve the solidarity-based financing of the public health care system. For this purpose, a theory of public finance gives us a standard tool – taxation. This has significant advantages for the financing of the health care system that other methods cannot achieve. Most important ones are equal financial burden according to disposable income and no risk selection when entering the system. Generally, there are two possibilities how to do it.

The first one is the general taxation, which can be achieved by increasing the general tax rate on personal income by amount required for public health financing. This is better according to the classical theory of public finance, because hypothecated taxes are usually avoided here. In addition, this results in maximum simplicity of the system, because there will be just one general tax rate on personal income.

The second one is the earmarked taxation. While it can be seen financially as similar to the current social health insurance approach, there are three significant differences, which should be noted. First, no specific ceiling known from social insurance has to exist. Second, the tax base could equal

to or easily derive from the tax base for the personal income. Third, this health tax on personal income is usually unified, changed by public choice and is not calculated according to the individual benefits of the insured.

Several factors should be taken into consideration when making a decision. Some of them are purely economic (financial); others are psychological and public-choice theory based (Keable-Elliott, 2014). We can also attribute some of those factors to behavioural economics. Some of those factors were analysed in literature, often the focus was primarily on indirect taxes and the examples of Finland and Portugal have been cited (Doetinchem, 2010). The factors can be summarized in the following table:

**Table 1 General versus earmarked approach to health tax**

General personal income tax	Earmarked health tax rate on personal income
Simple and compatible with standard taxation schemes	More complicated, separate tax rate and tax rule exists
One high total tax rate, e.g. current income plus health tax	Two lower tax rates, general income and health tax separated
Ability to be included in progressive taxation schemes	Ability to be separated from progressive taxation schemes
Hidden in general taxation, ability for the government to change health expenditure out of sight of people	Transparency to citizens, ability to be changed independently of general taxation and visibly to citizens
One tax base	One tax base, or some categories of income could be excluded

*Source: own proceedings*

It is up to the policy makers, which variant they choose. Empirically, we can see that in some countries such as Great Britain, the health care system has been financed from general taxation but a discussion about the sources of National Health Service financing is going on (Keable-Elliott, 2014). In other countries, such as Germany, a single rate of social health insurance now exists, which is getting close to the condition of earmarked taxation on income from the payers' point of view. The social health insurance approach, while it has lost its original meaning because of the universality of health care provided, can keep one of its key attributes: the visibility of allocating a specified share of income into health care system. As an evolution of this system, there has been an ongoing debate in Germany (Pfaff & Langer, 2005), resulting in the suggestions of so-called "Bürgerversicherung" as one of the two viable proposals for the health care financing in the future (the second being "Kopfpauschale", which is actually a poll tax for health care).

#### IV. The transformation of public health insurance in Czechia

In Czechia, very similar system of health insurance as it was introduced in the 1990's is still present, but the socio-economic conditions have changed since then. Therefore, it makes sense to strive for a change, at the same time preserving the valuable aspects of the Czech health system that were repeatedly proven useful for a long time. These include solidarity, social and geographic availability and high quality of delivered care. The ethical dimension of health care financing including equity is essential for good health care system in the European environment. We can note that some of the suggestions and at first sight miraculously looking health reform proposals have silently broken those principles and assumptions. This should be avoided, because in the end it can deteriorate the health status of the population and can cause deeper inequalities in health, which will eventually lead to even higher health care costs.

Currently, the health insurance contributions are at the level of 13.5 % paid from the health insurance base, which differs among social groups. They are:

- Employers and employees – gross wage

- Self-employed – 50% of their profit, e.g. income minus the costs necessary to achieve it (or the fixed percent of “presumed costs” applies).
- Persons without taxable income – minimum wage
- “State insured persons” (children, unemployed, pensioners) – fixed amount set and changed arbitrarily based on public choice (by the government)

This typology means that different social groups pay different contributions and this differentiation serves as a factor of social policy measures for the burden placed on them. This is especially prominent in the case of self-employed persons, who appeared in the 1990’s and this differentiation was one of the key factors of supporting their existence in national economy.

Let us show how the transformation to earmarked health tax can be done.

Current health insurance contributions (13.5% from the health insurance base) can be replaced by the health tax rate on personal income. Theoretically, the health tax base could be the same as the current tax base for personal income; this would provide maximum compatibility and simplicity. The new tax rate could be even slightly lower than the current 13.5% (approximately 12–13%) in order to maintain the current fiscal capacity, because in the unified tax base variant, the tax base will be slightly higher than the current health insurance contribution base, since all personal incomes will be taxed. That would be however controversial move from current tax and health insurance policy, therefore selected types of the income according to § 8, 9 or 10 of the income tax law No. 586/1992 (incomes from other sources than labour) could be removed from the health tax base if desired by tax policy makers. Then the health tax base would differ from general income tax base, however. Still, it can be easily derived from the general income tax base when computing tax liability.

Of course, the position of employed and self-employed, which is highly asymmetric in current health insurance, would not change by this fiscally neutral approach. We recognize that it might be desirable to keep some advantage in health tax payments for self-employed and the earmarked health tax concept is compatible with this approach. Further tax reform can set the health tax base for self-employed at different level than now if desired by public choice.

Specific problem is the transformation process for the employees, where currently the health insurance contributions are divided between employer and employee. If we want to do this operation maintaining fiscal neutrality, the following transformation mechanism could be potentially used.<sup>2</sup>

Currently the employee pays 4.5% health contribution and 6.5% social contribution (11% total), and the employer pays 9% health contribution and 25% social contribution (34% total). After the transformation, the employer pays just a health tax 11%, and the employee pays whole 31.5% social contribution and „remaining” health tax 2.5%.

This fiscally neutral transformation could be done immediately. Further tax reform could abandon the remaining 2.5% at the employer side and put the health tax rate to the employee as a whole (e.g. earmarked health tax can then be 13.5% payroll tax for employees), or even spread the payment of health tax between employer and employee at new ratio (e.g. 1:1) if desired by public choice. To maintain fiscal and labour market neutrality, the total labour costs for employers should remain the same afterwards.

The tax could be collected through same channel as general taxation, with the method that the desired tax rate will be applied to the tax base. The current payment of insurance to individual

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<sup>2</sup> Author of this paper would like to thank prof. J. Vostatek from the University of Finance and Administration, Prague for the inspiration on this employees’ transformation mechanism.

health insurance companies can be abandoned and the health tax revenue shall go directly to the central fund of health insurance, from where it will be distributed to health insurance companies according to the cost indexes. Those redistribution mechanisms can stay the same as they are now.

Additional important component can be introduced – the health tax relief. This could be important from the health policy point of view. If desired by policy makers, the positive health behaviour (e.g. participation on prevention) could entitle a taxpayer for health tax relief, which would the lower the amount of health tax paid. The criteria are open for discussion, however the behavioural economics clearly shows that the motivation should be positive in general, not negative. As an example could serve the participation on prevention, proven absence of smoking or participation in disease management programs. These criteria, when applied properly, could provide positive motivation for effective behaviour. In addition, purely theoretically, if multiple health insurance companies are preserved, they can to some degree influence the amount of tax relief that will be applicable to the particular citizen.

To make the proposal fiscally consistent, we have to deal with one more social group in the current system – the state insured persons. The abandoning of social health insurance can also abandon the concept of insurance contributions for state insured persons as well as artificially fixed contribution base for the government. However, the existing fiscal capacity should be preserved at least. This can be done in two ways.

First, the fiscal capacity could be maintained just by sending the same amount of money as now from the government budget to the central health care fund, making it a pure subsidy from the government budget. This is compatible with the general taxation approach, but has all the advantages and disadvantages already described. If we leave the fiscally neutral principle used for the simple transition analysis, the current discrete and static settings of the state insured person's contribution could be also changed, keeping the number of citizens without taxable income relevant for calculation. Such a mechanism has been recently discussed at the Ministry of Health level as a proposal (MZ ČR, 2016). It contains a relationship of the amount paid for state insured persons to the average wage or minimum wage (first variant is considered more suitable) and also possible introduction of variation coefficient of the amount paid based on difference between the actual number of state insured persons to their average for the given period. This can compensate for the changes in number of state insured persons caused by economic cycle (Zdravotnický deník, 2016). The categorization of citizens could be still largely simplified, but the mechanism for setting the amount paid to the health insurance companies directly from the government budget can be improved.

Second, the fiscal capacity could be maintained by earmarking part of the excise taxes for health care. While the relationship between consumption of goods subject to excise taxes (tobacco, alcohol, gasoline etc.) and the individual health care status is not strictly causal, on the other hand it is evident that generally their consumption is related to and often increases health care expenses (side effects of smoking, drinking, traffic...). So the concept of negative externalities in health could be assessed here.

At the current state of excise taxes construction in the Czech Republic, however, it is difficult to imagine the specific excise health tax e.g. on tobacco or alcohol. In addition, some recent studies argue against specific taxes on individual commodities (Cooper, 2013). Therefore, it makes sense to hypothecate the share of total excise taxes revenue for health, at the level of current fiscal capacity of the contributions for state insured persons. This equalled, in 2015, circa 61 billion CZK, whereas in the same year the revenue from excise taxes (tobacco, alcohol and mineral oils) was approximately 138 billion CZK (MF ČR, 2017). So we can estimate the share as  $61/138 =$  approximately 44% of the excise taxes revenue for health care.

This approach has one more advantage, when revenue from excise taxes changes, e.g. because of inflation, the hypothecated revenue for health system will be changed accordingly. Therefore, it can to some extent react automatically to the macroeconomic development better than current system of “state insured persons”. When larger adjustment is necessary, public choice can do discrete policy change of the percentage of excise taxes allocated for health.

## V. Discussion

In Czechia, described earmarked tax approach seems to be more suitable than increasing the general tax rate on personal income. The general tax approach would *ceteris paribus* result in a relatively high single tax rate on personal income, approximately between 33–37% of personal income<sup>3</sup>. This calculation is based on current real tax rate for employees being 20.1% (15% flat income tax \* 1.34) plus adding adequate percentage (13.5%) for current health insurance contributions. This is probably currently politically unfeasible, because such a personal income tax rate would psychologically work against the acceptance of such a reform. Of course, when utilizing progressive tax schemes or other tax policy changes, the total single income tax rate could be somewhat lower for the majority of taxpayers. However, it is a normative decision, which tax schemes will be used in the future.

The health tax rate on personal income is transparent both to the government and to the taxpayer, with optional introduction of health tax relief based on positive behaviour in the system. Administratively, the system will be only slightly more complicated than the general tax approach, and surely much more simplified than the current system, where specific health insurance contributions are collected directly by health insurance companies and separate mechanisms are used.

Moreover, the earmarked health tax rate could be changed independently of the general tax rate. This is important from the health and social policy point of view. The people will be able to see the changes in health expenditure in the tax rate number. The public choice can transparently set the rate with relationship to the national expenditure on health and health costs assessment (HTA), preferences of people and the quality and accessibility of health care in society desired. In addition, in the times of economic downturn, the independent health tax rate could better preserve the fiscal revenues allocation for health care system, while generally the politicians currently have strong tendencies to manipulate the expenditures and/or revenues gaining required fiscal austerity, including the social systems settings and benefits (Mossialos, 1997). For example recently in Czechia, there have been suggestions that pensions could be frozen or even lowered because of fiscal pressure and reform of social pension insurance has been discussed (Janský & Schneider, 2012). The earmarking (hypothecation) of taxes for health makes the health expenditure visible and inevitable part of public debate, which makes it more resistible to those pressures (OECD, 2015).

Therefore, even if some arguments for the earmarked health tax target the policy making process and the structure of the tax system from the taxpayer’s point of view more than direct tax revenues level, they surely have their rationality.

Analysis of the hypothecation of taxes for health surely has significant implications both to the public finance and to the social policy field. It is clear that the theory of public finance has arguments against such an approach; it is mainly because this concept breaks the basic principle of taxes as a general tool not being tied to particular branch of economy. In addition, the common tax techniques, such as tax base, tax reliefs, tax rates etc. generally work better when having just one income tax structure where they are applied. This is why in this paper a general taxation approach has been assessed, too. However, we demonstrated that it is possible to construct earmarked health

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<sup>3</sup> Exact percentage depends on the fiscal situation at the time of change.

tax on personal income that is highly compatible with the principles of simple taxation procedures while keeping its advantages for health policy.

The hypothecated taxation approach can be seen primarily in direct income (or payroll) health taxes as an evolution of social health insurance. Secondly it can be the share from indirect excise taxes as a supplemental resource for health care financing. The actual usage, if it is introduced in reality, would require a further careful implementation analysis. This includes the mechanism of health tax reliefs, which, as the tool for positive motivation of health care behaviour, could be implemented according to approaches of behavioural economics.

A debatable spot of the introduced approach is also the share of excise taxes: while the proposed solution is an alternative to the general fiscal subsidy for state insured persons, further analysis should be done how the system will behave under various macroeconomic development. On the other hand, there are significant theoretical discussions on the share of direct and indirect taxes in economy, the tax burden of work etc., so the ability to allocate a share of indirect taxes into health care is worth considering and should not be ignored just because the direct taxes on personal income could be easier to implement on the first sight.<sup>4</sup>

## VI. Conclusion

This paper presented arguments and techniques for the transformation of Czech public health insurance to the earmarked (hypothecated) health tax. A fiscally neutral variant was shown, rooted in the abandoning of public health insurance contributions as being known now and replacing them with earmarked health tax rate on personal income, initially at the same or similar rate as the current one. This would solve the situation by using common taxation techniques for collecting public resources.

Because of the current fiscal subsidy for state insured persons, if we want to maintain existing fiscal capacity, it can be replaced by a share of revenue from excise taxes. This would also put a clear share of indirect taxes into financing of health care. If this is not desired by public policy, we can evaluate one of the recent public policy proposal for automatic determining the amount paid for state insured persons and continue to pay it from general taxation (MZ ČR, 2016). We have also noticed very recent public discourse suggestion to create fund for investment into public health facilities (hospitals) and separate the investment and operating expenditure within public health insurance (Pražský deník, 2017). While interesting and controversial idea, this would require more fundamental changes than those that are covered in this paper.

As for the international experience, the following approaches have been assessed: first, the process of transformation of social health insurance, primarily in the country of its origin, Germany, is important for consideration (especially the concept of *Bürgerversicherung*). Second, the arguments for and against hypothecated taxes (primarily indirect) are subject to interest, at the same time, only a few number of countries have currently implemented them in the form of specific hypothecated indirect tax. This is one of the reasons, why the approach in this paper is different and does not construct indirect hypothecated tax on specific commodities. Rather it suggests allocating a predetermined share of excise taxes for health budget.

The advantages and disadvantages of proposed solutions have been discussed. To summarize the reasons that favour the earmarked solutions, the transparency, ability to change independently, relationship to negative externalities in health and certainty of allocation for health care are the main reasons to follow this way. In addition, a health tax relief on personal income could be present, facilitating positive behaviour in the health care system and life style. The health tax rate on

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<sup>4</sup> For example, in the African country Ghana an earmarked share of VAT has been used as one of sources for financing their health care system (Bagbin, 2012).

personal income is compatible with current health insurance contributions principle, while it is radically simpler and administratively easier, especially when single income tax base is utilized. Thus, it can be also seen as an evolution of current public health insurance principle based on real characteristics of health care system as we see it now.

At the same time, we have to recognize that the concept of earmarked taxes is kind of novelty in the Czech scientific and public discourse. While the theoretical thinking was facilitated by the fact that fiscally neutral variant was considered, if this concept is introduced into reality, deeper evaluation would have to take place. This includes the law aspects of taxation procedures and the position of self-employed in universal health care financing. In addition, this concept would require some understanding and sympathy for its qualities, especially related to public policy and behavioural economics arguments. It is clear that health system has attributes that call for earmarked financing. While it is true that some other sectors of economy also yearn for this status (construction of specific fiscal funds etc.), health system has specific characteristics that justify for it. As stated in literature (Doetinchem, 2010), especially sectors of health and education have such a status that they can generate public support for specific hypothecated tax approach.

Those aspects are without doubt a field for further research. It can be only desired that this research be done with open mind for the idea and trying to make a positive use of it. One thing, however, can be said already – the proposed system is surely more suitable for current socio-economic conditions than the current one, which has shown significant shortcomings. At the same time, the proposed system maintains important aspects and values of Czech health care system in terms of solidarity, accessibility and high quality, while bringing new possibilities such as earmarked health tax rate, health tax reliefs, more equal position of citizens as health taxpayers and allocating a share of excise taxes into the health care system.

### Acknowledgements

The paper has been prepared within the project "Current trends in development of financial markets", supported by the Institutional support for long-term strategic development of research organization University of Finance and Administration in 2017.

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