

WHAT DETERMINES AN INDIVIDUAL'S WILLINGNESS TO PAY MORE TAXES TO SUPPORT HEALTHCARE

Abstract

This study utilizes 2016 Life-in-Transition data for Uzbekistan to empirically investigate determinants of individual's willingness to pay more taxes to support healthcare services. Findings reveal that the strongest determinants of willingness to pay more taxes are trust in political parties and a better economic situation in the country. By contrast, the income level is the weakest covariate with an insignificant effect. The results of this study have direct policy implications for funding options of the Mandatory Health Insurance (MHI) program.

Keywords: *healthcare, taxes, policy analysis, Uzbekistan, Mandatory Health Insurance*

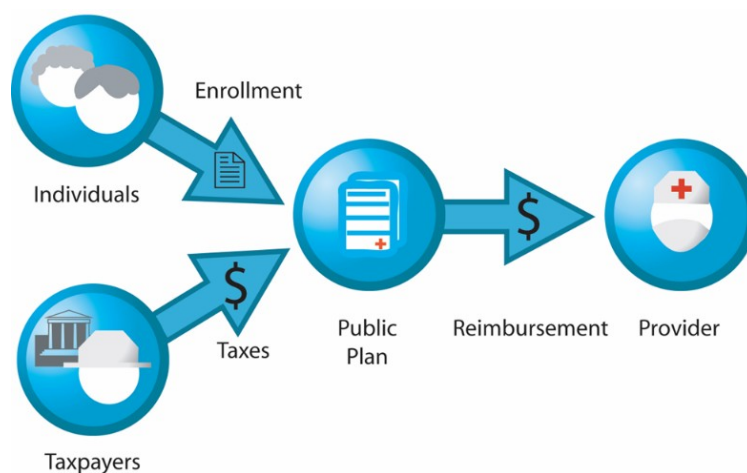
Introduction

Healthcare has become the main focus area in the socio-economic strategies of Uzbekistan. After independence in 1991, the Uzbek government established new reforms and health programs to improve the health level of the nation. However, according to the latest available data, 13 infants out of 1,000 die each year, while 29 women die out of 100,000 while giving birth (World Bank, 2023). So, the question is why these people are dying? Why are health reforms in Uzbekistan not working as they are in developed economies?

There are several issues in the Uzbek healthcare sector. The most important problem is high levels of informal out-of-pocket payments. Informal out-of-pocket payments which are known as under-the-table expenses decrease healthcare consumption of low-income households. In addition, government hospitals and medical centers lack efficient machinery and highly qualified professionals. Good quality healthcare services are available in the private sector which means it is accessible to middle- and high-income individuals only. Adequate financing plays a crucial role in determining the quality of healthcare provision and equity. Although the Uzbek government each year increases government spending and investment in the public healthcare sector, there is a need for additional income to improve public healthcare quality and promote equity.

To solve issues in healthcare services in 2018 Uzbek government introduced the Mandatory Health Insurance (MHI) program. MHI is a state-guaranteed benefit package for all. It mandates citizens to enroll in the program and provides financial protection to access essential healthcare services for free. However,

funding options are still under consideration and the program is not implemented yet. According to the recent report by the World Health Organization (WHO, 2023), the most feasible option for funding MHI is through increasing taxes. How this system works is described in the picture below:



Picture 1. How MHI works?

However, after increasing tax rates to fund healthcare services, taxpayers may feel the burden of this financing method. It may impact formal employment negatively. More specifically, if workers do not agree with the new tax regime, they may switch to informal employment and prefer unregistered cash payments. Therefore, increasing taxes would be an optimal solution when people are willing to support the healthcare sector financially. So, the question is: Are citizens willing to pay an additional part of their income to promote free healthcare services for all? Which factors determine their willingness?

This study utilizes 2016 Life-in-Transition data for Uzbekistan to empirically investigate determinants of individual's willingness to pay more taxes to support healthcare services. Therefore, the results of this study have policy implications for funding options of the MHI program. The main stakeholders of this paper are civil society and government organizations such as Government Tax Bureau, the Ministry of Health, and the Ministry of Finance.

The rest of the paper proceeds as follows. Section 2 reviews related literature. Section 3 describes data and variables. Section 4 discusses the empirical methodology and results. Section 5 provides policy recommendations and the conclusion for the analysis.

Literature Review

This study contributes to two strands of literature: theoretical and empirical.

Theoretical Literature

The rational choice theory says that an individual's willingness to contribute to social welfare programs depends on several factors. These factors can be grouped into three categories: self-interest, social beliefs, and institutional trust.

Firstly, individuals want to financially support government programs if they have a previous positive experience of being part of a similar welfare program. In addition, they may contribute to healthcare programs if they hear about the positive experiences of others. Citizens will be willing to pay an additional part of their income only if they think it will benefit them or the people surrounding them. More specifically, people who are at risk of becoming dependent on free healthcare services will agree to the tax increase (Cheung, 2017).

Secondly, if people are aware of their social rights, and they support equality there is a higher probability of them to agree for a tax increase. Thirdly, if institutions are trustworthy, citizens are more likely to contribute to social welfare programs. More specifically, individuals pay additional money to institutions if they know that additional income can make a change in healthcare and save lives (Jager, 2006). So, theoretical literature about factors influencing willingness to pay tax (WTP) to support social welfare programs can be summarized as the graph.



Graph 1. Theoretical background

Empirical literature

In the empirical literature, there are only a few studies showing determinants of willingness to pay taxes to support public programs. Habibov et.al. (2006) based on panel data from Life-In-Transition Survey (LITS) analyzed 32,000 samples from 29 countries and found that institutional trust, age, years of education, and income level are the main determinants positively affecting a person's decision to financially support or not to support healthcare reform programs. Also, Soroka et.al., in Canada empirically investigated a positive relationship between respondents' age and willingness to pay more taxes to financially support government reforms (2013).

In almost all studies, individual characteristics such as gender, marital status, and income level are associated with the decision to support healthcare programs. More recently, Habibov and Fan find that citizens support funding healthcare services through increased taxation if they have health-related problems and if they are at risk of using free public healthcare services. By contrast, healthier individuals consider this funding option of programs as a tax burden for the working-age population (2019).

While in the empirical literature, most authors use similar individual, household, and economic level factors in determining public support for healthcare reforms, Cheung et.al., (2017) argue that the political beliefs of individuals also play important role in determining WTP to promote equity in healthcare consumption. More specifically, a person belonging to some political orientation and understanding the importance of equity in healthcare service utilization is more likely to contribute to strengthening public healthcare. To summarize the literature review, Table 1 below illustrates the main points of studies similar to this empirical analysis.

Authors	Research Article	Data Source	Dependent Variable	Independent variables	Main Results
Habibov et.al., 2018	Who wants to pay more taxes to improve public health care?	LITS	Willingness to pay	Institutional trust, wealth, social trust, satisfaction with healthcare services, education level, economic outlook	Higher education level leads to support WTP; Higher healthcare service satisfaction means higher support for WTP
Tambor et.al., 2013	Willingness to pay for publicly financed health care services in Central and Eastern Europe	Primary data	Willingness to pay	Place of residence, education, gender, income level, recent user of public health service	Individuals' willingness to pay taxes is limited by their income level and recent users are more willing to pay taxes to improve quality of services.
Soroka et.al., 2013	What Moves Public Opinion on Health Care?	Innovative Research Group	Willingness to pay	Age, health status, education level, insurance, region, gender	Health and education level have positive effect to support WTP
Cheung et.al., 2017	Does trust increase willingness to pay higher taxes to help the needy?	LITS	Willingness to pay	Trust in government, trust in political parties, support for market economy, support for democracy, education, age, gender	Trust in government and political parties play crucial role in supporting social programs.

Habibov and Fan, 2019	Influence of interpersonal and institutional trusts on welfare state support	LITS	Willingness to pay	Quality of public healthcare services received, economic condition, age, health level, education level, ability-to-pay, interpersonal and institutional trust	Interpersonal and institutional trust have positive effect to financially support healthcare service improvement
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Table 1. Empirical literature review

Data

This research contributes to the empirical literature by determining factors that influence individuals' willingness to pay taxes to strengthen the Uzbek healthcare system. For this analysis, I use 2016 Life-in-Transition (LITS) data for Uzbekistan. LITS data is collected by using a stratified random sampling method. It is sponsored by the European Bank of Reconstruction and Development and the World Bank. The latest available cross-sectional 2016 data for Uzbekistan includes 1506 observations.

For this study, the outcome variable is a person's willingness to pay more taxes to support the healthcare system. In LITS data, there is a question asking about individuals' willingness to pay extra tax for the improvement of the healthcare system. The response to the question is in binary form: yes or no. According to the responses, 75% of the sample population indicated that they are willing to pay more taxes. For independent variables, this study analyzes several individual-level, country-level, and healthcare-level characteristics which will be discussed below.

Empirical Analysis

Estimation Approach

Following the Habibov and Fan (2019), the estimation approach and variables of interest are as follows:

$$\ln\left(\frac{P}{1-P}\right)Ti = \beta_0 + \beta_1Pi + \beta_2Gi + \beta_3PPi + \beta_4Hi + \beta_5Wi + \beta_6Ri + \beta_7Ei + \beta_8\sum Zi + e$$

Where, T = individual's willingness to pay more taxes to support the healthcare system;

P = trust in people;

G = trust in government;

PP = trust in political parties;

H = health level;

W = wealth level;

R = belief in redistribution from the rich to the poor;

E = whether the economy of the country improved during the last four years;

Z = sum of other covariates: gender, university education, and marital status;

e = error term.

In the estimation process, I use the Logit method, as the dependent variable is a dummy variable with S-shaped probability distribution. To check the provided model accuracy, I used tests for checking multicollinearity and model specification. According to specification tests, no problems were found.

Results

Table 2 reports the results for the model of interest discussed above.

Variable	Logit		
	Marginal Effect	Coef.	S td. Err.
Trust in political parties	0.1960	1.1156***	0.1688
Trust in government	0.0733	0.4170*	0.2107
Trust in people	0.0491	0.2797*	0.1407
Better economic condition	0.1222	0.6957***	0.1989
Believes in redistribution	0.0567	0.3230*	0.1507
Higher education	0.0575	0.3271***	0.3664
Married	0.0113	0.0645	0.1602
Female	0.0205	0.1168	0.1305
Middle wealth households	0.0009	0.0054	0.1916
Wealthiest households	0.0056	0.0324	0.3071
Medium health level	0.0427	0.2210	0.2851
Good health level	0.0498	0.2951	0.2854

Number of observations	1506
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legend: * $p < .1$; ** $p < .05$; *** $p < .01$

Table 2. Results

Because coefficients of logit do not provide interpretation, I calculated the marginal effect of variables on the outcome variable which is provided in the second column. The empirical results are consistent with previous literature. Both interpersonal and institutional trust have a positive effect on willingness to pay taxes to support healthcare. For example, compared to not trusting political parties trusting them increases the odds of willingness to pay taxes by a factor of 0.2. A similar positive relationship can be observed between education level, the economic condition of the country, and WTP. More specifically, if the economy of the country improved over the last four years, citizens are more likely to support a tax increase to promote free healthcare services for all.

Individual-level characteristics such as gender, wealth status, and marital status do not have a statistically significant effect on determining WTP. Surprisingly contradicting the results of Soroka et.al. (2013) there is no statistically significant association between the health level of the respondent and the probability of WTP taxes to finance healthcare services.

To sum up, Table 2 results reveal that the strongest determinants of WTP are trust in political parties and a better economic situation in the country. By contrast, the income level of survey respondents is the weakest covariate with an insignificant effect on WTP.

Policy Recommendations

This study investigated determinants of WTP additional tax to support healthcare in the case of Uzbekistan. According to empirical investigations, there are essential policy recommendations which are as follows:

- ❖ Introducing a reform program to improve the health system. Ensure full coverage of MHI;
- ❖ Increase payroll tax by 1% to fund health reform program;
- ❖ Increase excise tax for alcohol and tobacco products by 10% to fund health reform program;
- ❖ Implement essential fiscal and monetary policies to improve the economy;
- ❖ Introduce a reform program to improve the education system. For instance, increase government scholarship places for universities by 20%;
- ❖ Build trust for citizens. For example, open a new healthcare funding organization and send all collected revenue from the tax there. In this way, the trust of citizens is more likely to increase as they will be sure that the money, they are paying will be used solely for healthcare improvement purposes. Moreover, establishing a national pool of funds to strengthen the healthcare sector leads to the efficient allocation of resources.

Conclusion

To conclude, this study attempts to empirically investigate the determinants of WTP tax for supporting health services. I find a positive effect of higher education, improved economy, belief in redistribution from rich to poor, interpersonal trust, and institutional trust on WTP additional tax to improve the healthcare sector. In the context of Uzbekistan health and income level of individuals do not have a statistically significant influence on WTP. Therefore, I recommend to the Uzbek government introduce reform programs that support the economy, education, and healthcare sectors. Moreover, as LITS data reveals 75% of the sample population are willing to pay an additional tax to improve healthcare. So, policymakers can generate additional income by increasing taxes. Further, to efficiently allocate financial resources and build trust, the government should establish an organization for a national pool of funds that comes from taxes.

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