Health and Wellbeing of Czech Population in a Cross-age Perspective

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Short abstract

The present paper tackles the issue of health and wellbeing of the Czech population in a cross-age perspective. It explores the association between wellbeing and perceived health condition. The wellbeing indicators are choice variables included in the European Value Survey conducted in 2008 on a representative sample of Czech people aged 18+. The issue of wellbeing is investigated both at the subjective and social level: subjective wellbeing is measured using the personal evaluation of life satisfaction and happiness in life, whereas social wellbeing includes general trust in people and participation in different voluntary organizations/activities. First, it presents the main indicators used in the analysis by means of descriptive statistics. Second, it explores the relationship between perceived health condition and wellbeing from an age and gender perspective. Further on, it explores the relationships between perceived health condition and different elements of wellbeing by employing binary logistic regression procedures controlling for various socio-demographic covariates (age, gender, marital status, education, employment status, number of children and religiousness) and other correlates (control in life, trust in health care system and place of residence). The primary model resulted from the binary logistic regression shows that some of the socio-demographic variables were determinants of the proportion of individuals that reported good health condition – age, marital status, education, employment status. The second model introduces in the analysis the other covariates such as subjective and social wellbeing, control in life, trust in health care system and place of residence. The results indicate that subjective wellbeing is a relevant and significant explanatory variable of the perceived health condition. The third model included the interaction between social and subjective wellbeing measurements, but it did not bring any supplementary explanation in the model.

Extended abstract

a) Theoretical and empirical consideration

Very low levels of fertility and the ageing of societies have been regarded as one of the most important population challenges of the 21st century. The increasing life expectancy corroborated with a sharp drop in fertility has significantly changed the demographic structure of population in many post-modern societies. Consequently, pre-retirement and retirement period, as well as, health and wellbeing issues have been taking a more significant position within both academic and policy-making debate. The process of aging is shaped by a number of phenomena that are closely linked. Among them, the change in the economic setting (not only of the Czech Republic), the reducing support offered by the social

welfare state system accompanied by a gradually shift towards neo-liberalism, as well as continuous adjustments in personal values, preferences, attitudes and norms accommodated by post-modern societies are the most important ones.

The literature and research on ageing has been well-established for a long time. The most commonly used definition of successful aging is offered by Rowe and Kahn (1987, 1997), who work with three dimensions of ageing: high cognitive and physical function, low risk of disease and disability, and active engagement with life. These three dimensions are relative and imply a hierarchical relationship among them. Rowe and Kahn (1997) suggest that the absence of disease and disability leads to a good preservation of the mental and physical functions (implying a good health status report), which further on allow people to get engaged in different aspects of daily life.

Health status implies a multi-dimensional measurement of various indicators varying from a subjective dimension (offered by each person asked to report on own health condition) to an objective one (measured by an observer – e.g. physician, interviewer, etc.). No matter the level of measurement – subjective or objective - health status report depends on one hand, on factors, such as diseases (chronic or acute), use of health care, health care system, and on the other hand, on individual socio-demographic and economic factors, such as age, gender, marital status, level of education, economic position in the labour market.

Studies such as **European Value Survey (EVS)** include a question on self-perceived health status, of the type: *All in all, how would you describe your state of health these days?*[1] . Other studies such as **Survey of Health, Ageing and Retirement in Europe** (**SHARE)** include special sections focusing on health measurements both at subjective and objective level.

Researchers working with perceived health status draw attention to the difficulties and cautions in interpreting the results from cross-country analyses given the fact that responses might be influenced by both the way how the concept is operationalized in the survey (formulation of the questions and responses) and social, cultural and institutional factors specific to each country (see for example OECD 2011).

Given the significant variation in health across population (across cohorts) and the grown significance in maintaining independence (both physically and mentally) and perpetuating active aging, it is crucial to grasp how health condition (either subjective – perceived or objective) and social capital, measured by subjective and social wellbeing, are inter-related, and determine the differences in health status in an age and cross-country comparative perspective.

There is a large body of literature focused on the relation between social capital and health which shows significant correlation between social capital and health at the individual level (e.g. D.Hombres et al., 2009; Baert and de Norre, 2009; Czapiński, 2009; Mackenbach et al., 2008; Folland 2008; Iversen , 2008; Kim et al., 2008; Agren and Berensson, 2006; Veenstra et al., 2005; Veenstra, 2000, 2005; Lindström et al., 2004). D.Hombres et al. (2009) investigate the impact of social capital on self-reported health for eight countries from the Commonwealth of Independent States. They measure social capital at the individual level by using three indicators - trust, participation in local organizations and social isolation. Their

[1] Respondents were offered the following scale: 1 – very good, 2 – good, 3 – fair, 4 – poor, 5 – very poor

results point to a positive correlation between individual trust and perceived health condition, while the effect of the voluntary participation in organizations and activities on health is not straightforward. Contrary, in a Canadian study, Veenstra (2000) demonstrates that there is no relationship between perceived health conditions and various indicators of social capital. Czapiński (2009) discusses psychological and social wellbeing of Poles aged 50+ in a cross-country perspective and concludes that objective indicators of mental health are weakly correlated with subjective indicators, and socio-demographic factors are significant predictors of various indicators of psychological wellbeing. On the other hand, Poles have the lowest level of social wellbeing among the studied countries, while the correlation coefficients of social wellbeing with subjective indicators of mental wellbeing are generally significant in all countries. Kim and colleagues (2008) argues that the strongest correlations could be found between individual social capital and health, particularly between the cognitive components of social capital and perceived health status. Agren and Berensson (2006) argue that a high level of social capital enhances a person's sense of belonging and wellbeing. Further on, the quality of life of older people is improved by the opportunities to participate in voluntary activities and organizations. Baert and de Norre (2009) found a negative relationship between perceived health status and employment: being retired, unemployed or inactive corresponds to a higher probability of reporting bad or very bad health. A negative impact on perceived health status has also education – people with a lower level of education tend to report poorer health status (see Mackenbach et al., 2008).

The present paper tackles the issue of health and wellbeing of the Czech population in a cross-age perspective. It explores the association between wellbeing and perceived health condition. The wellbeing indicators are choice variables included in the European Value Survey conducted in 2008 on a representative sample of Czech people aged 18+. The issue of wellbeing is investigated both at the subjective and social level: subjective wellbeing is measured using the personal evaluation of life satisfaction and happiness in life, whereas social wellbeing includes general trust in people and participation in different voluntary organizations/activities. First, the paper will present the main indicators used in the analysis by means of descriptive statistics. Second, it will explore the relationship between perceived health condition and wellbeing from an age and gender perspective. Further on, it will tackle the relationships between perceived health condition and different elements of wellbeing by employing binary logistic regression procedures controlling for various socio-demographic covariates (age, gender, marital status, education, employment status, number of children and religiousness) and other correlates (control in life, trust in health care system and place of residence).

b) Data and methodological considerations

EVS data – definition of variables in the analysis:

Outcome variable:

The variable of **self-reported health condition** is assessed by an item which consisted of five categories (1 – very good, 2 – good, 3 – fair, 4 – poor, 5 – very poor). For the purpose of analysis, the variable was recoded into a dichotomous one (1 – good and 2 – poor).

Independent variable:

To represent the **social capital**, I will use a scheme made up of two different wellbeing measurements: (1) **social wellbeing**: this indicator is operationalized as *social participation* in different voluntary activities and organizations, and *general trust* as perceived by our respondents; (2) **subjective wellbeing***:* this measurement is operationalized by *perceived life satisfaction* (using a 10-point scale) and *happiness in life* (based on a 4-point scale).

The *social participation* variable describes how a person currently takes part in the different voluntary activities and organizations in society. It is measured as an index consisting of 14 items and trichotomized. If participation is not acknowledged to any activity than the person is classified as not involved (*value 1*). If three alternatives or less are indicated, the social participation of that person is classified as low (*value 2*). Otherwise, the social participation of a person is classified as high (*value 3*).

Additional individual demographic, socioeconomic and attitudinal factors such as age, gender, socioeconomic status, place of residence, perceived control over life, and confidence in health care system are to be included in the analysis.

c) First results

Figure 1. Subjective health status by gender and age groups

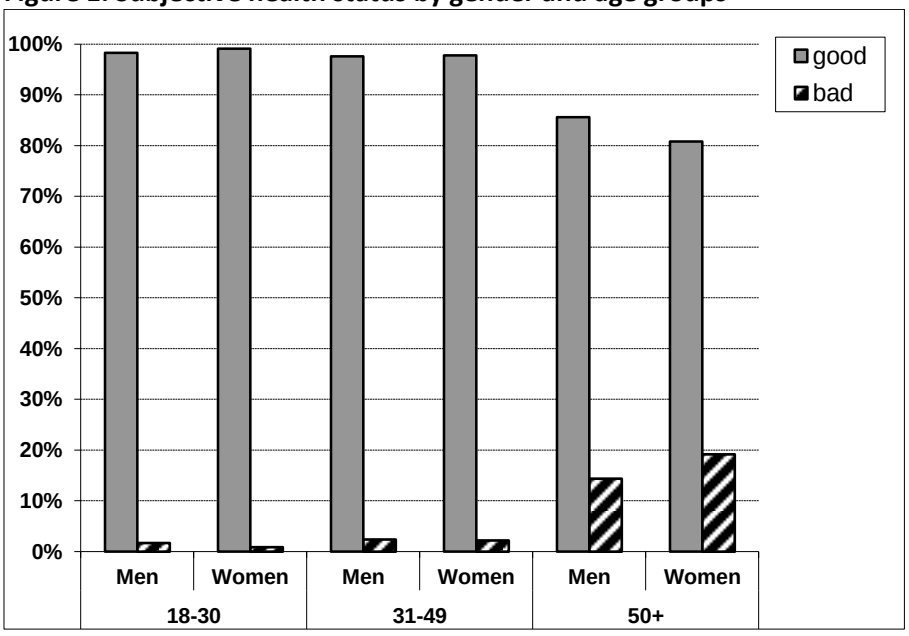

Figure 2- Social wellbeing – 1. Indicator - Social participation by gender and age groups

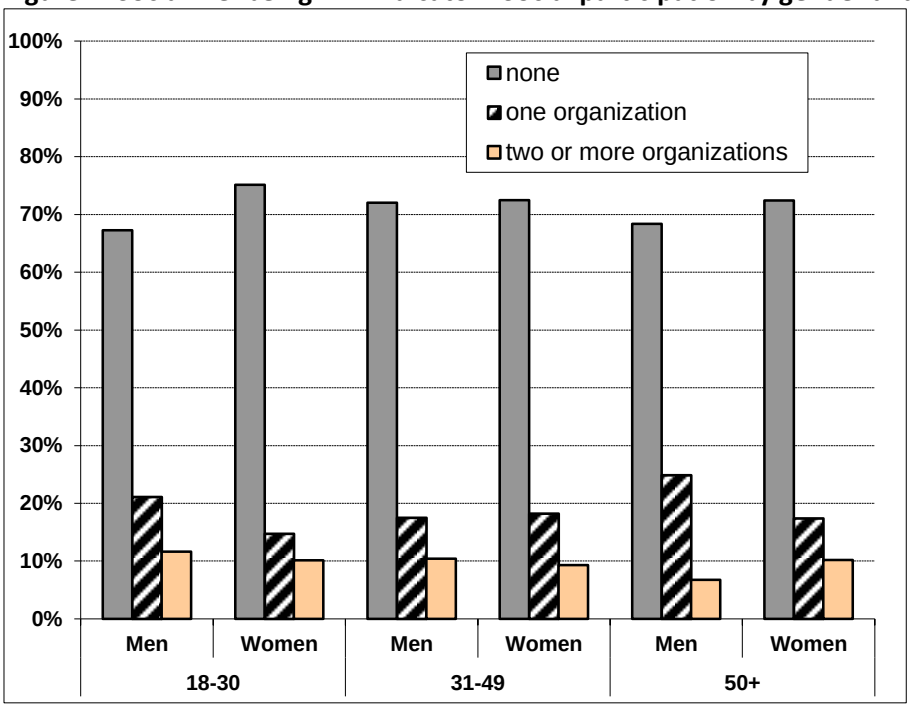

Figure 3- Social wellbeing –2. Indicator - Trust by gender and age groups

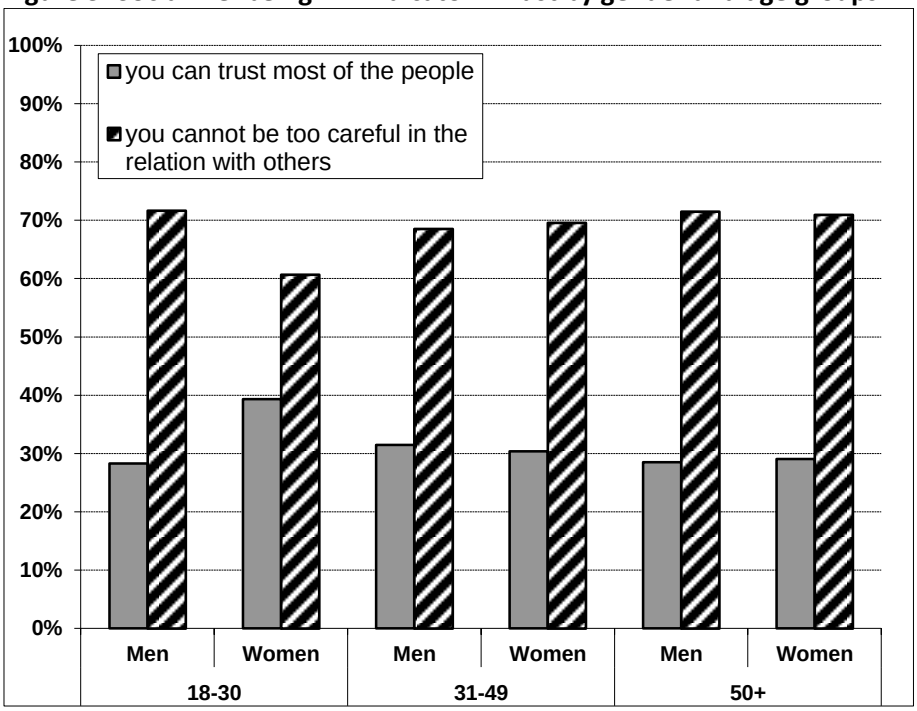

Figure 4. Subjective wellbeing by gender and age groups

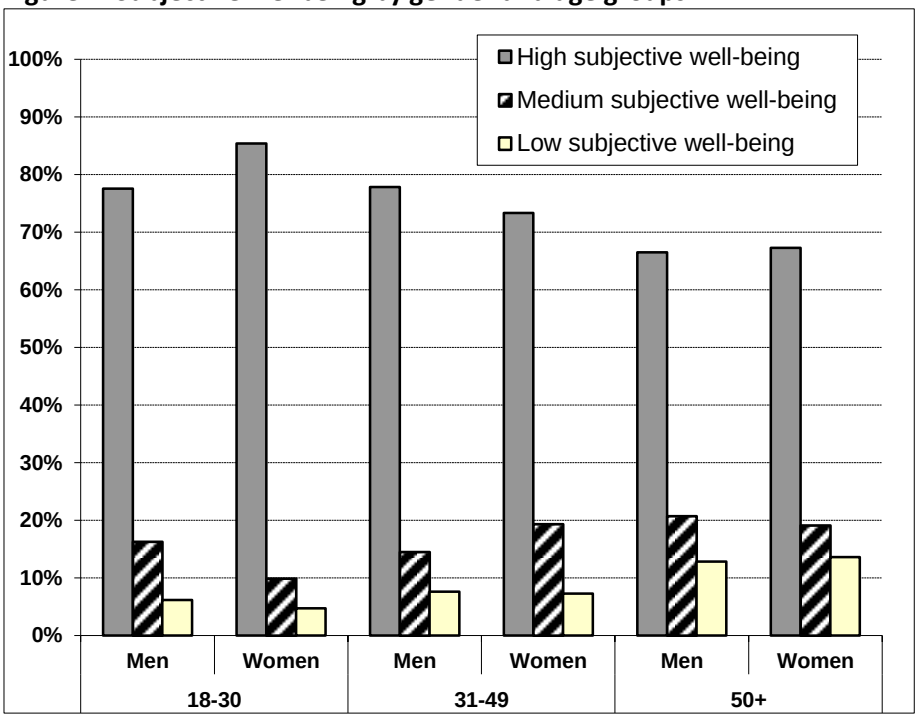

Table 1. Regression models

Determinants	***Model 1***	***Model 2***	***Model 3***
Socio-demographic	Yes	Yes	Yes
Social wellbeing	No	Yes	Interaction social and subjective wellbeing
Subjective wellbeing	No	Yes	
Residence	Yes	Yes	Yes
Control in life	No	Yes	Yes
Trust in health system	No	Yes	Yes

For illustration:

Table 2. Model 2 – binary regression analysis. Ref. category for the dependent variable - "good health status"

Determinants	Category	B	S.E.	Sig.	Exp(B)
Gender	women	ref.	ref.	ref.	ref.
	men	.246	.244	.314	1.279
Age groups	50+	ref.	ref.	ref.	ref.
	18-30	-2.192	.546	*.000*	.112
	31-49	-1.102	.373	*.003*	.332
Marital status	widow	ref.	ref.	ref.	ref.
	married	-.397	.290	.171	.672
	divorced	-.857	.403	*.033*	.424
	single	-.633	.490	.197	.531
Education	tertiary	ref.	ref.	ref.	ref.
	primary	1.473	.693	*.034*	4.362
	vocational	1.092	.565	.053	2.981
	secondary	.363	.502	.470	1.438
Number of children		-.176	.111	.114	.839
Employment status	not working	ref.	ref.	ref.	ref.
	working	-1.403	.293	*.000*	.246
Residence	above 100000 inhab.	ref.	ref.	ref.	ref.
	up to 4999 inhab.	-.372	.291	.202	.689
	5000-19999 inhab.	-.866	.379	*.022*	.421
	20000-99999 inhab.	-.340	.344	.324	.712
Importance of God in life		.047	.035	.180	1.048
Social participation	2 and more organizations	ref.	ref.	ref.	ref.
	none	.743	.461	.107	2.102
	1 organization	.660	.511	.197	1.935
Personal trust	you can trust most of the people	ref.	ref.	ref.	ref.
	you cannot be too careful in the relation with others	.399	.264	.130	1.491
Subjective wellbeing	low subjective wellbeing	ref.	ref.	ref.	ref.
	high subjective wellbeing	-2.603	.323	*.000*	.074
	medium subjective wellbeing	-.693	.303	*.022*	.500
Control over own life		-.042	.053	.428	.959
Trust in health system	no	ref.	ref.	ref.	ref.
	yes	-.049	.240	.838	.952

Summary

The first analyses of Czech EVS data (Chromková Manea, 2013 – paper in progress) show that some socio-demographic factors - age, marital status, attained level of education, employment status, place of residence – are statistically significant determinants of the perceived health status. Although included in the analysis, two opinion and attitude indicators measuring the control over own life and the confidence in the health care system

did not bring significant results. Subjective wellbeing is a relevant determinant of the perceived health status of the Czech adult population. The interaction between social and subjective wellbeing did not improve the initial model.

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