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# THE ASSESSMENT OF HEALTH SERVICES FOR CHILDREN IN ROMANIA

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# The Assessment of Health Services for Children in Romania

Floare CHIPEA<sup>1</sup>, Claudia OSVAT<sup>2</sup>, Cristiana MARC<sup>3</sup>

# Abstract

This paper starts from an extensive study concerning the assessment of children's well-being and outlines a possible model of evaluating the health services to which they have access. The study was conducted in two stages, having a qualitative and a quantitative component. We selected for the analysis only the area of health, to which we will be refer throughout the paper. In the first stage we used the method of sociological survey through interview and the data collection was conducted through the focus group technique, and in the second stage we used the survey based on questionnaire. In our approach we attempt to answer the following research questions: Are there differences between the assessment of health services by residents of urban and rural areas? What are the causes of the differences between evaluations? The results of the study emphasize that a significant percentage of participants said they had a good health condition, the differences between urban and rural areas being low. The children from urban areas have benefited in a higher degree from consultation at the specialist doctor, family doctor, dentist and private healthcare services. The analysis of the survey data shows that rural respondents evaluated health services in a significantly better way than those from urban areas. The developed regression model shows that living in rural areas, together with satisfaction with health condition and standard of living are predictor-variables for the assessment of health services. Implications for the construction of an instrument which objectively assess the health system are discussed.

Keywords: children; health; medical services; indicators; urban-rural.

<sup>&</sup>lt;sup>1</sup> University of Oradea, Universității Str. no. 1, Oradea, ROMANIA. Email: fchipea@gmail.com

<sup>&</sup>lt;sup>2</sup> University of Oradea, Universității Str. no. 1, Oradea, ROMANIA. Email: claudiaosvat@gmail. com

<sup>&</sup>lt;sup>3</sup> University of Oradea, Universității Str. no. 1, Oradea, ROMANIA. Email: cristiana\_marc @yahoo.com

# Introduction

Romania is a country that makes efforts towards respecting the rights and well-being of children. A component of people's well-being is health, issue that will be analyzed in this paper. The studies to which the proposed analysis will refer highlight the difficulties of the Romanian health system and the differences between rural and urban residential environments with reference to the health system (the very pronounced rural-urban gap). The assessment of the health system aims at identifying the problems faced by it and the way they are reflected in the satisfaction of beneficiaries. Objective and subjective indicators are used in order to analyze the domain of health. Objective indicators usually show health condition (e.g. number of patients, chronic disease rate, infant mortality) and health care services (e.g. number of doctors, number of available medical services, costs with health as percentage of GDP). Subjective indicators refer to the evaluations of individuals concerning their own health and the health care services. For the assessment, the objective indicators are doubled by subjective ones in order to create a clearer picture of the research subject (Raphael et al. 1996; Ben-Arieh, 2008; Bradshaw and Richardson, 2009). Health plays a very important role among the determinants of well-being in children and young people (Bălțătescu, 2009). This paper starts from an ampler study on the assessment of children's well-being and highlights a possible model of assessing the health services to which they have access.

We believe that the theoretical and methodological aspects to be presented highlight a common problem encountered in the quantitative research on child well-being, i.e. the gap between rural and urban backgrounds in evaluating certain indicators. In this paper we will focus on one of the domains analyzed in the previous study, i.e. health. We will present some methodological aspects and we will try to answer the following research questions: (1) Are there differences between the assessment of health services by residents of urban and rural areas? (2) What are the causes of the differences between evaluations?

The study is divided into three parts. In the first part we introduce the context, in the second one we review the literature devoted to the differences between rural-urban residential environments, and in the third part we present the results of a study regarding the assessment of children's well-being, focusing on health and we analyze the encountered methodological issues.

#### Context

In assessing the well-being of different groups of population, several areas are taken into consideration (health, education, social life, economic status a.s.o.) with relevant indicators for each. When the focus is on children, one of the most

important areas referred to in assessing their well-being is health. In this context, the legal regulations in our country were aligned with those of developed countries. Thus, both art. 24 (1) of the UN Convention on the Rights of the Child (ratified by Romania in 1990), and art. 43 (1) of Law no. 272/2004 on the protection and promotion of children's rights provide the child's right ,,to enjoy the highest attainable standard of health" and "to receive medical and rehabilitation services necessary to ensure the effective realization of this right". The child's access to medical and rehabilitation services, as well as appropriate medication in case of disease is guaranteed by the State under article 43 (2) of Law no. 272/2004. Article 7 (1) of the UN Convention on the Rights of Persons with Disabilities (ratified by Romania in 2010) establishes the obligation of States Parties to , take all necessary measures to ensure the full enjoyment by children with disabilities of all human rights and fundamental freedoms on an equal basis with other children". According to art. 213 (1) in conjunction with art. 213<sup>1</sup> of Law no. 95/2006 on health system reform, all children up to the age of 18 are covered by insurance without contribution payments, being exempt from copayment of medical services.

According to data from the National Institute of Statistics (for 2010), from the total population, 4448510 were children and young people aged 0-19 years. On 31<sup>st</sup> of December 2010, the number of children with disabilities was 90829 of whom 2799 in low degree of disability, 21549 in medium degree, 15033 in emphasized degree and 34030 in severe degree (Child Protection Direction, 2010). According to the National Institute of Statistics, in 2010 the number of live newborns was 212200, the birth rate 9.9 ‰, there were 2100 deaths in the case of under one year of age children and infant mortality was 9.8 ‰. When it comes to international comparisons, it seems of symptomatic concern for the health assessment of the child that in 2010 Romania had the highest infant mortality in all EU countries, followed by Bulgaria with 9.4 ‰, Slovakia and Latvia with 5.7 ‰ (OECD, 2012, p.31).

Underfunding represents a chronic problem of the health system in Romania. Regarding health expenditure, Romania was in 2010 ranked last in the European Union, both in terms of health expenditure share of GDP (5.6% versus 9% European average) (IMF, 2012, p. 31), and in what concerns the level of expenditure per capita (677 euro compared to 2171 euro European average) (OECD, 2012, pp.120-123). In Romania, health care is provided by family doctors, specialist doctors, diagnostic and treatment centers, medical centers, health centers, laboratories, clinics and hospitals. These services are designed to meet the information needs, prevention, detection, diagnosis and intervention. According to art. 2 (7) of Law no.95/2006 "public health assistance is coordinated by the Ministry of Public Health and implemented by all public and private hospitals, incorporated and organized according to the law".

Studies show that one of the problems of the health system is to provide primary health care at a minimum level. Stanciu et al. (2008, p.117) believes that the difficulties of primary health care result from: imbalances in the territorial distribution of family physicians; poor infrastructure; lack of qualified staff and specialized institutional structures for preventive activities; the doctors overload and the lack of qualified personnel for medical care at patients' homes.

# Rural-urban gap in what concerns medical services

According to data from the National Institute of Statistics, Romania's population on July 1<sup>st</sup>, 2010 was of 21431298 inhabitants, of whom 11,8 million (55.1%) lived in urban areas and 9,6 million (44.9%) lived in rural areas. Romania is, also in terms of the degree of urbanization among, the last countries in the European Union. Lower rates of urbanization are registered only by Slovenia (50.1%) and Portugal (54.9%), while developed countries of the European Union register incomparably higher urbanization rates. For instance: Belgium, 98.6%, UK 80.0%, Czech Republic 73.8%, Bulgaria, 70.9%, Hungary 67.8% (National Institute of Statistics, 2011, p. 21). The low level of urbanization becomes significant as it is associated with poverty in various social areas.

In Romania there are differences between urban and rural areas in terms of infrastructure development, household equipment, and access to public utilities. In addition, the gap between residential environments "is strongly manifested in school instruction and access to forms of secondary education and higher education" (Mărginean, 2005, p. 7).

Both in terms of access to health services and their quality, urban-rural differences are important. Whereas in some rural areas primary medical care is not covered, medical facilities are poor, there are no permanent doctors, the situation in big cities and university centers is completely different, with modern medical centers and performing hospitals (Doboş, 2006, pp. 10, 16). The poor coverage of rural areas with health care services is invoked by Ioan Mărginean in his study on Romanian rural life (Mărginean, 2005, p. 9).

The income level also has a strong impact on health and access to health services. According to data from the National Institute of Statistics (2013), in the third quarter of 2012 the total average income for a household in the urban areas was with 23.1% higher than the one of rural households.

Studies in this field show that, correlated with the income level, the education level has a significant impact on access to health services, while "the [female] gender has a [negative] significant, but very weak effect" (Rose and Newton, 2010, p. 29).

Poverty, often associated with rural population, limits the access to health services. The use of health services involves a number of costs (for transport, payment of medicines, informal payment for medical staff) difficult or impossible to bear by the poor (Stanciu et al., 2006; Onica-Chipea, 2007). We consider relevant that the risk of poverty is higher in families with more children, so that ,,starting with the second child, each additional child, increases the chances of families to live in poverty and even in severe poverty" (Stanciu et al., 2008, p. 66).

A recent study of the situation of children in rural areas, conducted by World Vision Romania, on a sample of 1460 households shows that "the well-being of a household has a positive effect on children's access to health services, both in terms of medical analysis and the evaluation and treatment by a physician in the commune or city" (Bădescu and Petre, 2012, p. 30). The data of this study indicate that the proportion of sick children in the past 12 months (total 19.6%) decreases gradually with the increased age of the child and it is higher among better endowed households. Also, in 64% of cases, the children who were sick in the past 12 months were treated only in the household (without visiting the doctor), in 13% they were only at the doctor in the commune, and 23% were treated by a doctor in the town. The study shows that 41% of children under 2 years were consulted by the family doctor in the last six months and only 19% of children had medical tests done in the last 12 months. Regarding the quality of care, 42.8% of adult respondents assessed the quality of care in the commune as very good (Bădescu and Petre, 2012, pp. 28-35).

In Romania, the residence area contributes to the differential assessment of one's own health condition and of health care services. The research "Quality of Life 2010" conducted by the Research Institute of Quality of Life highlighted the following issues related to the assessment of health condition and health services by the population (Mărginean et al., 2010, pp. 27-30): (1) people from rural areas declare a worse health condition than those living in urban areas (55% of those living in rural areas appreciate their health as poor and very poor, compared with 45% of those living in urban areas); (2) preventive behaviors are slightly less present in rural areas (40% of those living in rural areas go to the doctor for routine controls, without signs of disease); (3) in rural areas, assessments of primary health care are more favorable than in the urban areas (indicating lower aspirations of people from villages and/or close and personal contact with medical staff); (4) the assessment of the health care system is predominantly negative (54% of the population consider the health care system as bad or very bad, in rural areas evaluations being more favorable than those in urban areas).

# Evaluation of health services for children. Study in Bihor, Cluj and Sălaj counties

In the following we analyze the data concerning the assessment of health care services for children. The data was collected within the study regarding children well-being initiated by Sergiu Bălțătescu and Claudia Oșvat from the Department of Sociology, Social Work and Philosophy of the University of Oradea and supported by master students of Public Policy in Social Work specialization<sup>4</sup>. The study, which began in 2009, aims at achieving a comprehensive system of indicators for the measurement of child well-being in Romania. It has a qualitative and a quantitative component and focuses on the main dimensions of children's well-being (Bălțătescu and Oșvat, 2010). In the present paper we selected for analysis only the health domain.

#### The qualitative component

The first stage of research consisted in organizing two focus groups, in order to obtain relevant information necessary for the development of the instrument used for the data collection in the second stage - a questionnaire survey. The first focus group was attended by specialists operating in social and educational areas. The expert group included: a doctor, three psychologists, three social workers, two sociologists, two primary school teachers and a teacher (12 participants). The second focus group was attended by parents (8 mothers) from both rural and urban areas (Bihor County). The focus groups were conducted based on an interview guide that focused on the selection of dimensions or well-being of children and related indicators. The focus groups were planned, organized and conducted by two specialists: a sociologist and a social worker.

Within meetings they identified the following six dimensions of well-being: health, education (formal and informal), property/housing, family, social relationships (social/relational-leisure time, culture; physical environment / neighborhood), subjective / psychological well-being (emotional life). For each domain, participants selected relevant indicators (delimiting these into indicators at institutional level and indicators at family/individual level). After the analysis of focus groups we noticed that the first dimension referred to by both experts and parents was that of health. For this area the indicators were operationalized as follows (*Table 1*):

<sup>&</sup>lt;sup>4</sup> We thank Antonia Brînduşa Grigoraş, PhD candidate at Babeş-Bolyai University Cluj Napoca, who collected the quantitative data for Cluj County.

	Indicators at institutional level	Indicators at family/individual level
	<ul> <li>infant mortality</li> </ul>	<ul> <li>registration at family doctor</li> </ul>
	- morbidity (number of illnesses per	- number of medical examinations / year - family
	1000 people)	doctor
	<ul> <li>average life expectancy</li> </ul>	<ul> <li>child diagnosed with a chronic disease</li> </ul>
	- annual rate of population growth	- number of medical examinations / year - specialist
	<ul> <li>degree of pollution</li> </ul>	doctor
	- number of cases / family doctor	<ul> <li>number of controls – dentist</li> </ul>
	- number of cases / specialist doctor	<ul> <li>long-term medication</li> </ul>
	- access to health services	<ul> <li>number of illnesses / year</li> </ul>
H	- share of health expenditure in	- inclusion in a degree of disability/existence of
Ę	GDP	personal assistant (family member)
II		<ul> <li>the period the child is given treatment</li> </ul>
HE		- parents who suffer from chronic diseases
а-		- parents who suffer from psychiatric disorders
Area - HEALTH		- siblings suffering from chronic diseases
ł		- health costs/year
		- number of sparing days from school / kindergarten
		for medical reasons
		<ul> <li>number of hospital days/year</li> </ul>
		<ul> <li>existing health services</li> </ul>
		- the need for treatment / surgery / recovery abroad
		or in another location
		- number of surgeries in the last year
		- number of accidents
		- quality of healthcare.

Table 1. Operationalization of indicators as a result of focus group meetings	Table 1. O	perationalization	of indicators as a	result of focus	group meetings
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# The quantitative component

The literature review and the focus group research conducted to the building of the research instrument that addresses the quantitative component of the studied topic. The questionnaire was structured taking into consideration the following sections shown in *Figure 1*.

The operationalized concepts based on data from the focus groups conducted in the preliminary study enabled us to identify some subjective experiences at key moments, the subjective perception in relation to certain aspects of life, the ways in which participants subjectively experienced certain life events. Therefore the combination of the subjective dimension, captured by means of qualitative methods and the objective one, identified through the questionnaire, led to the formation of a unitary image of the well-being of the children included in the study.



Figure 1. Structure of questionnaire

The preliminary analysis (Bălțătescu & Oșvat, 2010) shows significant differences in what concerns the indicators of satisfaction among parents in rural areas and those in urban areas. In this article we were interested in the extent to which these regularities are reproduced in the area of health. In the following we are interested in answering the following research questions: (1) Are there differences between the assessment of health services by residents of urban and rural areas? (2) What are the causes of the differences between evaluations?

## Methods

The used method was the questionnaire-based survey. The study involved 819 respondents from 50 localities in the north-west of the country (Bihor, Cluj and Sălaj counties). The sample was of convenience. 59.9% of the survey participants were from rural areas and 40.1% from urban areas. Interviews took place at respondents' home and in public places (such as in the vicinity of schools, play-grounds) and were conducted with one parent. A small percentage of interviews took place in residential family centers. If respondents have more children, they were asked to provide information and opinions about one of them.

# Socio-demographic characteristics of the sample

In *Table 2* we present the socio-demographic characteristics of the respondents in the two subsamples (rural-urban).

 Table 2. Socio-demographic characteristics of the sample

		Residence e	nvironment
		rural	urban
respondent's	male	20.3%	23.5%
gender	female	79.7%	76.5%
respondent's age	<= 35	52.8%	46.6%
category	36 - 40	29.9%	29.0%
	41+	17.2%	24.5%
mother's last	up to 8 grades	28.1%	7.9%
graduated school	9-12 grades, including professional school	44.2%	34.7%
	Technical school, post-high school studies, college	9.6%	16.1%
	university studies, post-university studies	18.1%	41.3%
father's	up to 8 grades	24.4%	6.4%
last graduated	9-12 grades, including professional school	54.7%	48.4%
school	Technical school, post-high school studies, college	10.3%	8.7%
	university studies, post-university studies	10.7%	36.5%
father's	unemployed	16.8%	9.4%
occupational category	Employed (average and below average professions)	72.1%	57.4%
	Employed (superior professions)	11.1%	33.2%
mother's	unemployed	39.8%	22.0%
occupational category	Employed (average and below average professions)	49.1%	56.1%
	Employed (superior professions)	11.1%	22.0%
child's gender	male	52.0%	46.2%
	female	48.0%	53.8%
child's age	0-3 years	11.8%	16.6%
category	4-6 years	23.2%	16.9%
	7-10 years	30.7%	27.6%
	11-14 years	34.2%	39.0%

As we can see, most of the survey participants are female, aged under 35 years, high school graduates. There are significant differences between the characteristics of respondents from urban and rural areas, especially in terms of education level, employment and child's gender. The respondents from urban areas have a higher average age and superior education (more superior studies graduates than those from rural areas). Explicably, therefore, urban subjects are employed in

better professions in comparison with those from rural areas. The data are consistent with the situation regarding the participation in university education of school-age population in Romania, which states that in the academic year 2010/2011, for example, the average rate of participation in university education was 40.8%, with wide disparities between urban areas, with a rate of 53.9% and rural areas, with only 20.8% (MECTS, 2011, p. 13).

the child is enrolled in	Child's age category							
crèche, kindergarten,	0-3 y	<i>y</i> ears	4-6 y	/ears	7-10	years	11-14	years
school	rural	urban	rural	urban	rural	urban	rural	urban
Yes, crèche	8.9%	35.2%	4.5%	5.5%	0%	0%	0%	0%
Yes, kindergarten	23.2%	18.5%	85.7%	90.9%	11.6%	12.4%	0%	0%
Yes, school	3.6%	5.6%	.9%	1.8%	88.4%	87.6%	98.2%	100%
No	64.3%	40.7%	8.9%	1.8%	0%	0%	1.8%	0%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Table 3. Crèche, kindergarten and school enrolment of respondents' children

In *Table 3* we can notice that the differences are evident in what concerns the children's area of origin and the degree of inclusion in levels of education. Thus, significant differences can be observed between urban and rural areas in the case of children aged 0 to 3 years. Most rural children are not enrolled in kindergarten; there is a difference of 20 percent between rural and urban areas. The differences maintain if we take into consideration the children in this age group enrolled in crèche and kindergarten. Most children from rural areas attend kindergarten and most children from urban areas attend crèche; these differences occur because of the lack of crèches in rural areas. Parents, without a viable alternative to provide children with a formal education setting, opt for existing alternatives. Given the need for re-employment when the parental care leave finishes, parents from urban areas initially enroll their children in crèche and subsequently in kindergarten; between urban and rural areas there are differences regarding the period young children attend kindergarten.

#### Results

#### **Respondents' health characteristics**

In the following we will analyze the objective and subjective indicators of the health of the respondents, with respect to urban and rural subsamples.



Figure 2. Parent registered with a chronic disease

As we can see in *Figure 2*, the majority of parents from urban and rural areas said they did not suffer from a chronic disease. The differences are obvious in the case of those who said they suffered from a chronic disease, with 5 percent more in urban areas than in rural areas.

Table 4. Satisfaction with health of the respondents

	Residence environment		
	rural	urban	
very dissatisfied	2.2%	.6%	
dissatisfied	4.7%	9.0%	
neither dissatisfied, nor satisfied	14.8%	21.2%	
satisfied	69.1%	63.5%	
very satisfied	9.1%	5.8%	
means on the scale1-5	3.8	3.6	

Regarding their own health, the data show that most of the respondents (over 69 percent in both areas of residence) are satisfied or very satisfied. Percentage differences (which seem to be in favor of rural respondents) are not statistically significant.

# Health characteristics of respondents' children

This subchapter of the study explores the health issues related to children, in the context of urban and rural communities.

Table 5. Health situation of children

		urban	
		rural	urban
child is registered at a family doctor	yes	99.4%	99.4%
	no	.6%	.6%
the child has had a routine control by	yes	75.3%	92.9%
the family doctor in the last year	no	24.7%	7.1%
the child has had a routine checkup by	yes	37.5%	59.5%
a dentist in the past year	no	62.5%	40.5%
child was consulted by a specialist	yes	28.6%	50.6%
doctor in the last year	no	71.4%	49.4%
parents have resorted to a private clinic for their child in the last year	yes	23.7%	38.3%
	no	76.3%	61.7%

No differences are showed between urban and rural areas regarding the child's registration at a family doctor. With this exception, we can see differences in the levels of all the other variables included in the analysis. Children from urban areas were consulted more frequently by the family doctor or by the dentist. Significant differences were recorded in terms of specialty consultations; many parents from urban areas (50.6%) compared to those in rural areas (28.6%) answered *yes* to this item. The same difference is maintained in what concerns resorting to the services of a private clinic (although the reported rates are lower, as expected).

Table 6. Children registered with chronic disease

	rural	urban
yes	5.4%	12.3%
no	94.6%	87.7%

The data presented in *Table 6* indicate that most of the children do not suffer from a chronic illness, regardless of their residence area. The differences between the two areas can be observed between those who answered yes to this item - 12.3% of children from urban areas suffer from a chronic disease, compared with 5.4% of those from rural areas. The situation is similar with the health of parents - the same trend was recorded in what concerns the assessment of the parents'

health. In this context the question arises: are urban dwellers sicker than those from villages? We incline to disagree. The explanation lies rather in the fact that the preoccupations concerning their own health and the family's health are higher in urban areas than in rural areas, leading to more frequent controls and to the identification of chronic diseases. This aspect, on our opinion, explains why urban respondents declare themselves, in a higher percentage, as suffering from a chronic disease.

Table 7. Children absent from kindergarten/school because of illness in the last year

	Resid	Residence			
	enviro	nment			
	rural	rural urban			
yes	49.7%	50.5%			
no	50.3%	49.5%			
Total	100%	100%			

Regarding the issue of absence from crèche/kindergarten/school because of illness, the obtained data *(Table 7)* show that the registered differences according to area of residence are not significant. However, the percentage of those who answered yes to this item is very high if we consider the small percentage of parents who responded affirmatively to the item that measures the presence of chronic diseases at children. Absence from school seems to be caused by short episodes of illness during the virus spreading season with a slightly upward trend in urban areas.

Table 8. Satisfaction with medical services, according to residence (average on 1-5 scale, and std. error for mean)

	rural	urban		
	Mean	Std. err. of mean	Mean	Std. err. of mean
availability of medical services for local children	3.4	.04	3.1	.06
quality of health care for local children	3.3	.04	3.2	.06
Information obtained from health professionals about the health problems of children	3.5	.04	3.3	.06
behavior of health professionals	3.6	.04	3.3	.06

Regarding the satisfaction with health services for children, the data indicate significant differences between rural and urban areas for all items included in *Table 8*. Thus parents from urban areas declare themselves more dissatisfied with health care services addressed to children than those from rural areas.

A factor factor analysis conducted indicates that the four variables measuring satisfaction with health services are explained by one latent dimension (which explains 78% of their variation) and thus they form a scale. We called the scale obtained by summing up the four variables "satisfaction with health services". The scale has a very good reliability (Cronbach's  $\alpha = 0,906$ ) and varies between 0 and 10. The mean for rural respondents is 6.09 (with standard error 0.09), while that for urban areas is of 5.59 (with standard error 0.12). F test shows that on average, the respondents from rural areas evaluate social services significantly in a better way than those from urban areas.

# Independent influence of residence environment on the evaluation of health services. Regression model

In order to test our hypotheses, we used a regression model having as independent variable the degree of satisfaction with health services and the following categories of predictors:

- Area of residence (dummy variable 1=urban, 0=rural).
- Socio-demographic data of respondent: gender, age category (two dummy variables: 36-40 years, over 40 years: reference category 18-35 years), cumulated educational level of the respondent and spouse/partner (scale from 2 to 8), mother's occupational category (2 dummy variables: average or below average occupations, superior occupations, having as reference "inactive"), father's occupational category (2 dummy variables: average or below average occupations, superior occupations, having as reference "inactive").
- *Socio-demographic data of respondent's child*: gender, age, age category (three dummy variables: 4-7 years, 7-10 years, 11-14 years: reference category 0-3 years).
- Economic well-being: satisfaction with standard of living
- Health of respondent: satisfaction with health
- Degree of interaction with the medical system: three used variables: active interaction summative scale of variables: went to medical examination, dental check, resorted to a private clinic), interaction in case of accident (the child had an accident in the last year, requiring hospitalization) and interaction because of a chronic illness (the child suffers from a chronic illness, the child needs constant medication).

The results are presented in Table 9.

	Beta	Sig (t)
Male respondent	029	.462
respondent aged 36-40 years (reference: age < 36 years)	.035	.423
respondent aged over 40 years (reference: age < 36 years)	.085	.058
cumulated educational level of the respondent and	.011	.836
spouse/partner		
Mother with average occupation	.016	.739
Mother with superior occupation	034	.549
father with average occupation	.061	.277
father with superior occupation	.034	.590
Male child	014	.715
Child aged 4-6 years (reference: age < 4 years)	.017	.784
Child aged 7-10 years (reference: age < 4 years)	.023	.732
Child aged 11-14 years (reference: age < 4 years)	.010	.883
Child absent because of medical causes 1-5 days during	.044	.289
the last year (reference: the child was not absent)		
Child absent because of medical causes at least for 6 days	.064	.138
during the last year (reference: the child was not absent)		
Rural residence environment	.143	.001
Degree of satisfaction with one's own health	.122	.010
Degree of satisfaction with the standard of living	.113	.024
Active interaction with the medical system	036	.410
Accidental interaction with the medical system	.066	.090
interaction with the medical system because of the child's chronic disease	044	.295

Table 9. Predictors of evaluation of medical services (Significant beta coefficients have  $sig(t) \le =0,05$ )

The results show that, when we control for the influence of socio-demographic variables, the residential area has a positive influence on the dependent variable (beta= 0.143). Basically this indicates that rural residents evaluates health services more positively, and this assessment is not influenced by the respondent's gender, age, educational and occupational characteristics, nor by his or her child's gender or age, nor by the respondent's level of interaction with the health systems. Moreover, these variables don't have a direct influence on the dependent variables.

The only variables resulting from the regression model that would influence the evaluation of health services are satisfaction with health (as an indicator of health condition) and the standard of living (as an indicator of material wellbeing). We have seen from the data presented in *Table 4* that rural respondents assessed their health as slightly better than those from urban areas (but the difference is not statistically significant). At the same time those from rural areas state in a lower extent that they suffer from chronic diseases and also that they went to control with their children in a lower degree. We can assume that those who have more experience in terms of interaction with health services, with people working in this area have more information on the health system and higher expectations towards the quality of services they receive. However, the correlational data presented in *Table 9* seem to contradict such an interpretation, as the experience with the medical system (either active, incidental or related to a chronic illness) has no independent influence on the satisfaction with health services. Another line of interpretation is based on the finding that the disease affects the other areas of life (economic, social, psychological etc.) and generally will result in a more negative assessment of public services in general and health ones in particular. Once again, this hypothesis doesn't seem confirmed by our data.

The standard of living is reflected in the quality of the services a person benefits from. Although most medical services are free, the situation of the public health system and the private alternatives determines the fact that the persons with higher living standards benefit from better services, which is reflected in their assessments of the health care system. This line of reasoning is supported by the data presented above.

Another hypothesis can be identified in the nature of the relationship between doctor and patient depending on the environment in which it takes place. Rural areas are more cohesive, which is reflected in the closer relationship between doctor and patient. The family doctor, who often provides the only medical services available to rural people, can develop a direct and close relationship with the beneficiaries. Moreover, due to lack of funds and difficulties in traveling to a center that provides specialized medical services, rural family doctors take over the specialists' medical attributions, which leads to their higher evaluations by the beneficiaries. Finally, the lack of alternative in terms of health services and information about other health system does not allow rural residents to objectively evaluate the health services they receive. In the analysis of health services in rural areas, we must take into account the volume and nature of health care services, but also the difficulties faced by people and the way in which they manage their problems. Taking into consideration all these aspects, for an objective approach of the evaluation of health services in villages, we must have in mind the particularities of the rural, the need to regard it as a system which, in order to establish a balance, substitutes and complements the elements that identify problems.

## Conclusions

Our analysis must be understood in the context of the Romanian health system, the difficulties it faces and its particularities. Health is one of the most important spheres of the individuals' life, at the same time representing one of the most important issues that the state, through the services it provides, should manage efficiently. The most frequently invoked problem faced by the Romanian health system, referred to by the media and by those working in the field, is the underfunding, which reflects in the quality of services. The quality of health services cumulates aspects related to medical equipments, the existence of appropriately trained medical staff as well as to its performance. The existing failures in any of these components result in a decreased quality of health care services and thus in a decreased satisfaction of the population towards these.

The conducted analysis captures relevant issues regarding the individuals' satisfaction with health services, with their health and their children's health, according to the environment they come from. The investigated subjects are, in the highest proportion, female persons, under 35 years, high school graduates, who have a job.

The vast majority of respondents say they have a good health condition and they do not suffer from a chronic illness. Rural subjects reported in a lower extent that they suffer from a chronic illness.

Higher differences between residence environments were registered in the case of accessing health services for children. Thus, the children of urban respondents benefited in a higher proportion from professional consultation, dental control or private health care services. Differences between the two areas were recorded in terms of routine controls for the child by the family doctor, with a lower percent in rural areas.

Over 87% of respondents' children do not suffer from a chronic illness, their percentage being higher in villages. However, a significant percentage of parents said that children were absent from kindergarten or school due to diseases in the last year, if we refer to the percentage of those who suffer from a chronic illness, absences being probably due to seasonal infections, with a slight upward trend in urban areas.

The satisfaction with the availability of health services for children, with the quality of health care services for children, with the behavior of health professionals and the information from health professionals related to children's health problems present statistically significant differences between urban and rural areas, rural people declaring themselves more satisfied with these aspects.

In order to capture the variables that influence satisfaction with health services, we have developed a regression model with the following predictors: area of residence, socio-demographic data of the respondents, socio-demographic data of the respondent's child, economic well-being, health condition of the respondent and the level of interaction with the medical system. The results show the independent positive influence of living in rural areas on the satisfaction with health services, controlling for socio-demographic characteristics. This must be understood systemically, in that the rural family doctor substitutes medical specialty services and thus generates greater satisfaction among the population. Finally, the explanation may reside in closer human relationships with the family doctor in the countryside. Besides residence environment, the regression model emphasizes only two variables that influence the evaluation of health services: satisfaction with health condition and standard of living. In the first case, the most plausible proposed explanation, although unsupported completely by data, is that the lack of a chronic disease protects the individual from the interaction with the health system, which could lead to a negative evaluation. The positive influence of living standard suggests, as expected, that wealthier people generally benefit from medical services of a higher quality, which also increases their satisfaction with the medical system.

The results of the analysis confirm the methodological difficulties posed by the analysis of some sensitive issues for individuals (their own health, the relationship with medical staff, quality of services). These results recommend that in the approach of satisfaction analysis towards medical services, one should focus on the relevance of factors such as interpersonal relationships that can develop within the interaction between the beneficiary and the provider of medical services, the amount of information known by population about the system and the health services and the difficulties encountered by beneficiaries in accessing such services. The inclusion of such factors in the conducted analyses can provide important information about the variables that influence the evaluation of health services.

The presented study answers the proposed research questions. The obtained results reflect the existing differences between rural and urban areas for the respondents included in the analysis, in what concerns the evaluation of medical services available to them. Differences were recorded regarding the assessment of their own health, the rural respondents stating in a lower percent that they suffer from a chronic disease. On the other hand, the analysis identified only two variables that influence the evaluation of health services: satisfaction with health condition and standard of living; the socio-demographic characteristics did not influence, in this case, the evaluation of health services.

The results suggest the complexity of variables that may influence respondents when they are asked to evaluate health services. Future research should include, along with the variables already included in the analysis, specific issues concerning the urban or rural specific of relations between beneficiaries and medical staff, as well as questions about the amount of information they have or the particularities regarding the medical services they report to. These, along with direct questions that determine the structure of evaluative judgments may contribute to a more accurate modeling of the evaluation process of health services and can explain more appropriately the differences between rural and urban areas. The final objective would be the development of specific indicators, both objective and subjective, for the measurement of satisfaction with health services in Romania.

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