

## ASSESSING QUALITY OF HEALTH SERVICES FROM ROMANIA IN TERMS OF PATIENT

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### ABSTRACT

*In the current economic environment is increasingly putting more emphasis on quality of products and services, but also on the practice of effective and efficient quality management. The main pawn in this equation is the client, being the one who can determine whether a particular product or service meet expectations or not. This paper aims to measure perceptions of the quality of medical services in Romania, from the perspective of the patient as their clients; he being in the best position to assess whether their needs and expectations have been met and to what extent.*

**KEYWORDS:** *assessment, health care, quality*

**JEL CLASSIFICATION:** *C12, I18*

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### 1 INTRODUCTION

The World Health Organization defines "health system quality" as "the attainment of the goals of the health system to improve the health and capacity of response to the expectations of the population". This study is, therefore, patient-centered and identifies the service quality factors that are important to patients. (Akter, Upal, & Hani, 2008, p. 125) Knowledge about the patients' perception towards health care quality is one of the most important steps towards introducing reforms in the health care sector. Identification of areas that require immediate improvement in public health care centers provides valuable guidance to the policy makers who can devise suitable strategies to make these centers more sensitive and responsible to the needs of patients (Narang, 2011) so the best possible results are achieved from new investments. (World Health Organization, 2006, p. 3)

Based on the stated purpose of the paper, I propose:

- An assessment of patients' perception of the level of quality of medical services in Romania provided by primary health care, outpatient care and hospitals;
- An evaluation of perception of patients by five dimensions of quality: the professionalism of medical staff, medical staff responsiveness, accessibility of service, material supplies, waiting time and price/quality ratio;
- Comparative analysis by area and country region of origin of the respondents;
- Dynamic analysis of patients' perception on the quality of medical services.

Our research hypotheses have been the following:

H<sub>1</sub>: *According to patients, quality of medical services in Romania is generally considered as being a medium level;*

H<sub>2</sub>: *Among the types of medical care, the worst assessment moves which hospital;*

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H<sub>3</sub>: *Among the dimensions of health services, are positively appreciated the professionalism and responsiveness of the medical staff;*

H<sub>4</sub>: *Among the dimensions of health services, in a negative way are appreciated material supplies and the waiting time;*

H<sub>5</sub>: *According to patients, in the past 5 years there have been improvements in the promotion of health services;*

H<sub>6</sub>: *There are significant differences between the patients' perception about the quality of health services according to their origin in urban or rural areas;*

H<sub>7</sub>: *There are significant differences between the patients' perception about the quality of health services according to their origin from the eight regions.*

On this basis, were formulated a number of statistical hypotheses, most of them being confirmed as a result of research and testing them using t-Student test and  $\chi^2$  test.

## 2 BACKGROUND

Among the defining characteristics of contemporary society is changing in a general sense, manifested on all levels of human activity. To survive in a competitive and ever-changing environment (Baba, Cherecheș, Țiclău, & Mora, 2009, pp. 32-39), health organizations are forced to adapt, to shape to cope with economic recession generated by the world financial crisis with implications on the extreme need of funding, the existence of a complex and more dynamic environment, characterized by various actors' interaction, development of knowledge within the field, technological progress and quality of service offer (Calu, Ștefănescu, Dobrin, & Șerban, 2011, p. 12996), changing consumer needs and expectations, as well as general trends in the economy and society.

Currently trying to reform the management of state owned health units by applying the principles used in the private sector. The new concept of public management can be analyzed by comparison to the bureaucratic government mainly focused on structure and rules, while the new public management is focused on results. (Ceptureanu & Ceptureanu, 2009, p. 1223)

Managers' response to all these challenges is the extent to which they succeed, through the design and implementation of new methods and forms of modern management, to achieve improved performance and competitiveness of health units, along with developing competitive advantages in the market of health services. In health services, the competitiveness should be analyzed based on the concept and peculiarities in this important area of economic and social life (Cicea, Dobrin, & Popa, 2009, p. 16); it can be defined by a number of aspects that are found in the quality of health services, improving performance, using medical technologies, human resources management, substantiating the medical decision, making preventive strategies and improved quality of life. (Cicea, Dobrin, & Popa, 2009, p. 16)

The overall impression of the patient in terms of quality of medical service provided, contribute a number of factors, including: quality of care, high-performance medical equipment, hotel conditions offered by the health unit (cleaning, food), accessibility (the ease with which persons can obtain care) (Donabedian, 2003, p. 18), the waiting time and price/quality ratio. It also plays an important role the human capital (Popa, Dobrin, Popescu, & Drăghici, 2011, p. 64) by reputation, professionalism and helpfulness of the specialists within the organization.

Top management of organizations need to understand that superior value to competitors mentioned in most definitions of competitiveness is perceived by the customer, in other words the transition from "zero-sum competition" (Porter & Teisberg, 2006, p. 6) which is based on dividing the value and the transfer costs between the competitors, to "positive sum competition" the one that creates and increase the value for the patient. (Ceptureanu & Ceptureanu, 2009, p. 1224) In a field as it is uncertain, the services sector, one thing is certain: the client evaluates the quality. (Miclăuș, 2006, p. 35) Satisfaction with health care is closely related to concepts of health care quality. (Rivers &

Glover, 2008) Donabedian (1980) noted that client/patient satisfaction is not only an important component of quality of care, but also a heavy contributor to the definition of quality from the perspective of clients' values and expectations.

At the international level are carried various researches the central object is the patient satisfaction; the results are increasingly used as a basis for improving quality of care and management of health units. (Baba, David, & David, 2007, p. 6) Regular application of questionnaires to measure patients' satisfaction, implementation of a system for measuring the quality of care provided, centered on the patient's needs will allow to improve the quality of health care in both the public health institutions as well as in private ones. (Baba, David, & David, 2007, p. 14)

### 3 METHODS

The research method used is inquiry-based online survey, using the questionnaire data collection tool. Advantages of this method are that it identifies what is valued by patients and the general public. (Verboncu & Gănescu, 2010, p. 32) The study began in March 2013 by distributing via e-mail to a large number of approximately 600 questionnaires and completion of a total of 303 of them, using Google Docs as support platform.

Completion rate of the questionnaires was  $\approx 50\%$ , providing a representative sample of the entire population studied, with a guarantee of outcome probability - 95% and a minimum acceptable error -  $\pm 5.7\%$ . The sample size was calculated as follows:

$$n_e = \frac{t^2 p(1 - p)}{\Delta\omega^2} = \frac{3.84 * 0.5(1 - 0.5)}{0.0032} = 300 \tag{1}$$

Where:

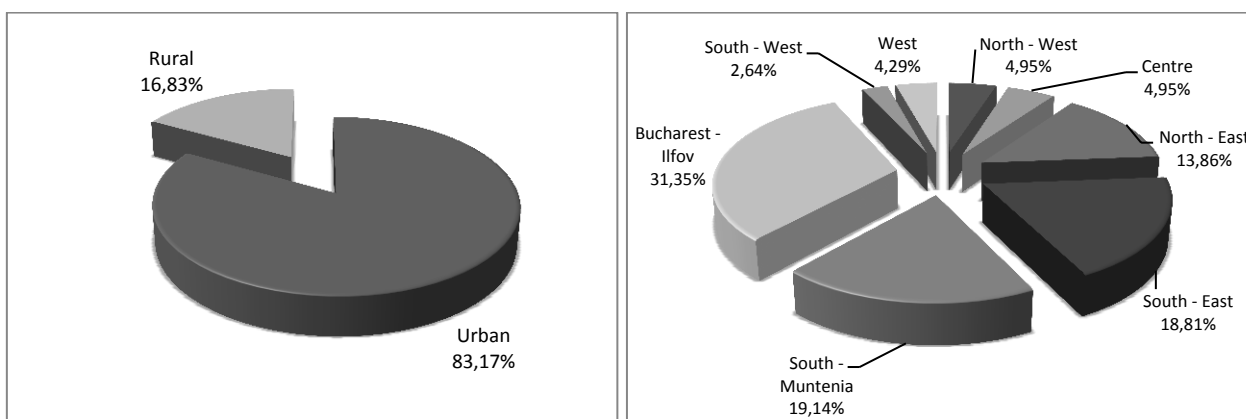
$n_e$  - sample size;

$t$  - coefficient corresponding probability that guarantees results;

$p$  - proportion of sample components that possess the characteristic studied;

$\Delta\omega$  - minimum acceptable error.

In order to shape an image of the patient's perception of the level of quality of health services in Romania and for making correlations between these perceptions and the origin of the respondents, in the sample were included respondents from all eight regions of the country, both in the urban and in rural areas. Figure 1 shows the composition of the sample.



**Figure 1. The sample structure**

Source: made by author

Given that for the distribution and completion of online questionnaires is necessary to use the Internet, statistical population is limited to its users (generally young and adult people, with above-

average training and adequate material situation). This trend is reflected in the structure of the sample.

In order to determine the representativeness of the sample, we proceeded to its validation based on the theory of statistical significance of the differences between the weights of the various layers in the population studied and the same weights obtained from the sample with application of a statistical test based on t-Student distribution. (Constantin C. , 2009, p. 122), followed by its recovery through the elimination of a total of 15 questionnaires from the overrepresented category and calculation twice a similar number of underrepresented category, so that differences in the weights of the layers become insignificant.

Within the framework of the statistical questionnaire were included only multi-choice questions defined (closed questions). Each multi-choice question answers predefined specified the exact manner of measuring scale used.

For data collection, was defined a database that has been exploited by using IBM SPSS Statistics 20.0 statistical program. Database structure was defined according to the structure of the questionnaire applied and primary and aggregated corresponding variables. The information contained was used for analyses of each variable, indicators of descriptive statistics, hypothesis testing and analyze correlations between variables based on contingency tables, t-Student test,  $\chi^2$  test. (Andrei, Matei, Stancu, & Andrei, 2009, p. 21)

#### 4 ANALYSIS AND RESULTS

Applying the preceding methodology the following findings had resulted:

##### 4.1 Assessment of quality of health services by type of care

To measure patients' opinion on the quality of health services by type, we have defined three level one aggregate variable:

- AMP - *Quality of medical services at the primary care level (family doctors);*
- AMA - *Quality medical services at level of outpatient medical care;*
- S - *Quality of medical services in hospitals.*

The five primary characteristics are measured on a scale of measurement with five values, assigned as follows: 1 - *Very bad*, 2 - *Bad*, 3 - *Neutral*, 4 - *Good*, 5 - *Very good*.

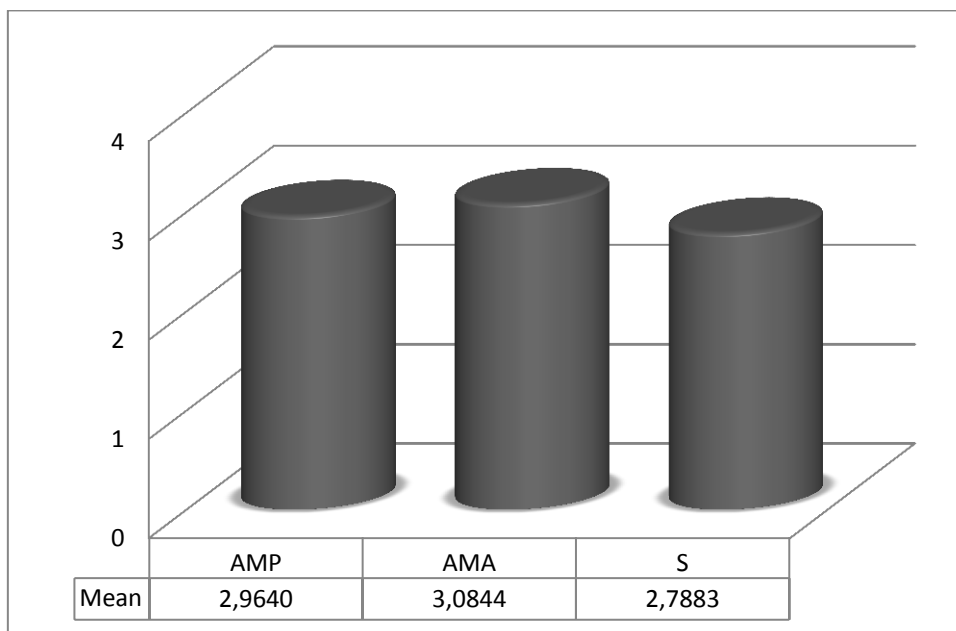
Level one aggregate variables are calculated as an average of the primary variables defined directly on the answers to the questions. First present a series of descriptive characteristics of level one aggregate variables used in the analysis of the quality of medical services.

The average indicators of variation and asymmetry, obtained for the six primary variables are presented in Table 1.

**Table 1. Descriptive statistics of level one aggregate variables defined by type of care**

		Statistics		
		AMP	AMA	S
N	Valid	290	229	214
	Missing	13	74	89
Mean		2.9640	3.0844	2.7883
Median		3.0000	3.0000	3.0000
Mode		4.00	4.00	3.00
Std. Deviation		.90501	.96541	.91054

*Source:* made by author



**Figure 2. Mean values of level one aggregate variables defined by type of care**

Source: made by author

As can be seen in Table 1, the quality evaluation of medical services presents averages around 3-*Neutral*, both at the level of primary health care and at level of outpatient medical care. Significantly worse appreciations have hospitals, with an average of 2.78. In the process of extrapolation of results can guarantee with a probability of 95% that, on a scale from 1 to 5, the average assessments of the quality of medical services by type of care is:

- AMP - *Primary health care*: between 2.85 points and 3.06 points;
- AMA - *Outpatient healthcare*: between 2.95 points and 3.21 points;
- S - *Hospitals*: between 2.68 points and 2.91 points.

#### 4.2 Assessment of quality of health services based on quality dimensions considered

To measure patients' opinion on the quality of health services based on quality dimensions considered, we have defined six level one aggregate variables based on six primary characteristics relating to:

- PPM - *The professionalism of medical staff*;
- SPM - *Medical staff responsiveness*;
- AS - *Accessibility of service*;
- DM - *Material supplies*;
- TA - *Waiting time*;
- RPC - *Price/quality ratio*.

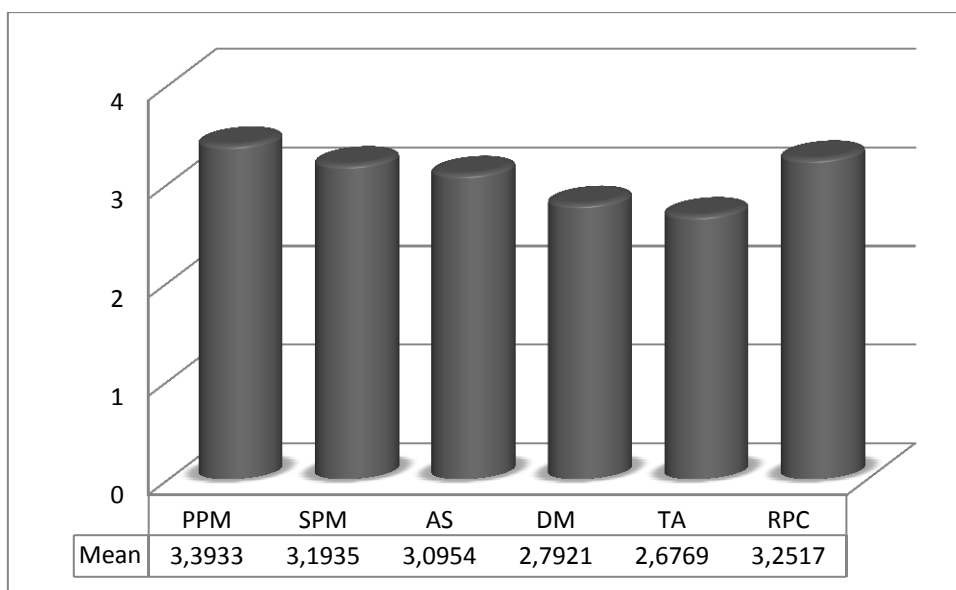
Level one aggregate variables are calculated as an average of the primary variables defined directly on the answers to the questions. Initially we present a series of descriptive statistics of level one aggregate variables used in the analysis of the quality of medical services. The average indicators of variation and asymmetry, obtained for the three primary variables are presented in Table 2.

As can be seen, for the greatest appreciation is PPM - *The professionalism of medical staff* with an average of 3.39, followed by RPC - *Price/quality ratio* (3.25) and SPM - *Medical staff responsiveness* (3.19), AS - *Accessibility of service* (3.09) and negative appreciations (below the average value of 3) DM - *Material supplies* (2.79) and TA - *Waiting time* (2.67).

**Table 2. Descriptive statistics of level one aggregate variables defined by quality dimensions**

		Statistics					
		PPM	SPM	AS	DM	TA	RPC
N	Valid	292	292	290	291	292	292
	Missing	11	11	13	12	11	11
Mean		3.3933	3.1935	3.0954	2.7921	2.6769	3.2517
Median		3.6667	3.3333	3.0000	3.0000	2.6667	3.3333
Mode		4.00	4.00	4.00	4.00	3.00	4.00
Std. Deviation		.96340	.94319	.92245	.95754	1.00128	1.02242

Source: made by author



**Figure 3. Mean values of level one aggregate variables defined by quality dimensions**

Source: made by author

Taking into account these results, we propose to test the following statistical hypothesis:

*H<sub>0</sub>: Average assessments of the quality of health services based on quality characteristics considered (PPM - Professionalism of medical staff, SPM - Medical staff responsiveness, AS - Accessibility, PRC - Price/quality ratio) is at most 3 on a scale of 1 to 5;*

*H<sub>1</sub>: Average assessments of the quality of health services based on quality characteristics considered (PPM - Professionalism of medical staff, SPM - Medical staff responsiveness, AS - Accessibility, PRC - Price/quality ratio) is more than 3 on a scale of 1 to 5.*

Given that we do not know the population standard deviation for hypothesis testing, we used t-Student distribution. Decision rule is to compare the calculated values with the theoretical values, chosen from Tables t-Student distribution. Depending on the result of the comparison of the two values will accept either of the two hypotheses set (null hypothesis or alternative hypothesis). (Constantin C. , 2009, p. 149)

So:

$$\text{For PPM: } t_{obs} = 6.975; t_{a/2} = 1.96 \Rightarrow t_{obs} > t_{a/2} \quad (2)$$

$$\text{For SPM: } t_{obs} = 3.506; t_{a/2} = 1.96 \Rightarrow t_{obs} > t_{a/2} \quad (3)$$



$$\text{For RCP: } t_{obs} = 4.407; t_{a/2} = 1.96 \Rightarrow t_{obs} > t_{a/2} \quad (4)$$

H<sub>0</sub> is rejected, accepting H<sub>1</sub>. We guarantee a 95% probability that the average assessments of the quality of health services based on PPM - *Professionalism of medical staff*, SPM - *Medical staff responsiveness*, PRC - *Price/quality ratio* is more than 3 on a scale of 1 to 5.

$$\text{For AS: } t_{obs} = 1.761; t_{a/2} = 1.96 \Rightarrow t_{obs} < t_{a/2} \quad (5)$$

H<sub>0</sub> is accepted. We cannot guarantee a 95% probability that the average assessments of the quality of health services based on AS - *Availability of service* is more than 3 on a scale of 1 to 5.

H<sub>0</sub>: Average assessments of the quality of health services based on quality characteristics considered (DM - *Material supplies* and TA - *Waiting time*) is at least 3 on a scale of 1 to 5;

H<sub>1</sub>: Average assessments of the quality of health services based on quality characteristics considered (DM - *Material supplies* and TA - *Waiting time*) is less than 3 on a scale of 1 to 5.

$$\text{For DM: } t_{obs} = -3.704; t_{a/2} = 1.96 \Rightarrow t_{obs} < t_{a/2} \quad (6)$$

$$\text{For TA: } t_{obs} = -5.513; t_{a/2} = 1.96 \Rightarrow t_{obs} < t_{a/2} \quad (7)$$

H<sub>0</sub> is rejected, accepting H<sub>1</sub>. We guarantee a 95% probability that the average assessments of the quality of health services based on DM - *Material supplies* and TA - *Waiting time*) is less than 3 on a scale of 1 to 5.

**Table 3. One-Sample Test**

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
<b>PPM</b>	6.975	291	.000	.39326	.2823	.5042
<b>SPM</b>	3.506	291	.001	.19349	.0849	.3021
<b>AS</b>	1.761	289	.079	.09540	-.0112	.2020
<b>DM</b>	-3.704	290	.000	-.20790	-.3184	-.0974
<b>TA</b>	-5.513	291	.000	-.32306	-.4384	-.2077
<b>RPC</b>	4.207	291	.000	.25171	.1340	.3695

Source: made by author

### 4.3 The overall assessment

In order to comprehensively assess the quality of health services from Romania, a level two aggregate variables (QSM - *The quality of medical services in Romania*) was calculated as an average of the level one variables.

According to patients' overall quality of care in Romania is considered to be a medium.

In the process of extrapolation of results, we can guarantee with a probability of 95% that on a scale from 1 to 5, the average assessments of the quality of medical services in Romania is between 2.90 and 3.09 points.

**Table 4. Descriptive statistics of level two aggregate variable**

		Statistic	Std. Error	
QSM	Mean	2.9970	.04808	
	95% Confidence Interval for Mean	Lower Bound	2.9024	
		Upper Bound	3.0916	
	5% Trimmed Mean	3.0199		
	Median	2.9444		
	Variance	.675		
	Std. Deviation	.82161		

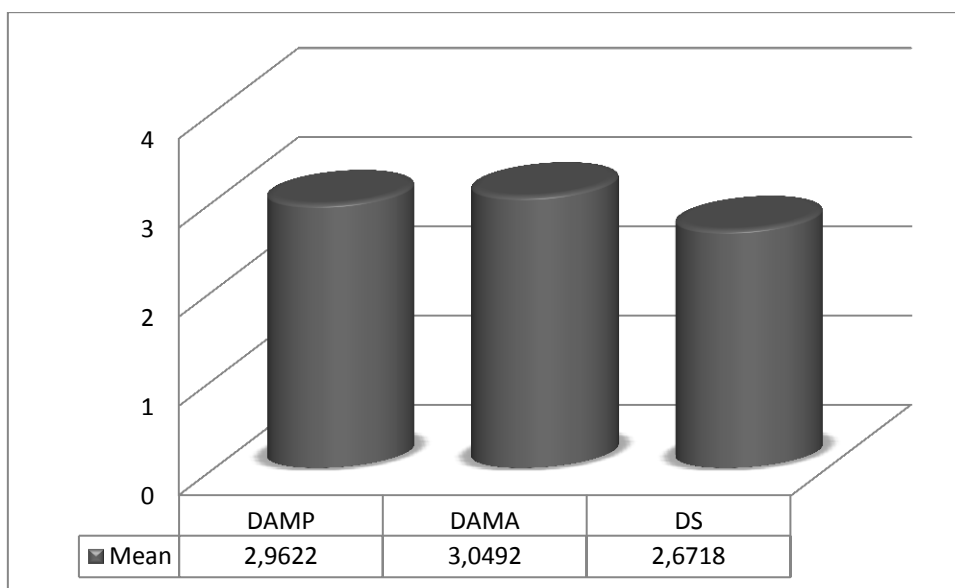
Source: made by author

**4.4 Dynamic assessment of patient perception of quality of care**

The dynamic analysis of patient perception of quality of care in the past 5 years is analyzed at the following levels:

- DAMP - *Primary care (family doctors);*
- DAMA - *Outpatient medical care;*
- DS - *Hospitals.*

The three primary variables are measured on a scale of measurement with five values, assigned as follows: 1 - *Much less good*, 2 - *Less good*, 3 - *Remained the same*, 4 - *Better* and 5 - *Much better*. To start we present a series of descriptive statistics of primary variables used in the analysis of the quality of medical services. The average indicators of variation and asymmetry, obtained for the three primary characteristics are presented in Table 5 and Figure 4.



**Figure 4. Mean values of primary variables defined for dynamic analysis of patient perception of quality of care**

Source: made by author

Assessment of dynamic development in the last five years in the level of quality of health services provided by the three types of care present similar values to the one valid for today. DAMP - *Primary care (family doctors)* and DAMA - *Outpatient medical care*, lies around average 3 - *Has remained the same*, and the variable DS - *Hospitals* has an average value of 2.67.



**Table 5. Descriptive statistics of primary variables defined for dynamic analysis of patient perception of quality of care**

		Statistics		
		DAMP	DAMA	DS
N	Valid	291	264	259
	Missing	12	39	44
Mean		2,9622	3,0492	2,6718
Median		3,0000	3,0000	3,0000
Mode		3,00	3,00	3,00
Std. Deviation		,88782	,93182	1,11908

Source: made by author

In the process of extrapolation of the results can be guaranteed with a probability of 95% that on a scale from 1 to 5, the average assessments of the quality of care by type of care is:

- between 2.85 points and 3.06 points for DAMP - *Primary care*;
- between 2.93 points and 3.16 points for DAMA - *Outpatient medical care*;
- between 2.53 points and 2.80 points for DS - *Hospitals*.

#### 4.5 Comparative analysis by area and country region of origin of the respondents

We will try to emphasize whether there is a correlation between patients' opinion about trends in the quality of health services from Romania in the last five years and their origin from urban or rural areas. In order to test this hypothesis, the responses to the questions were grouped depending on the area of origin of the respondents. The percentages obtained for urban and rural areas are shown in Table 6.

**Table 6. Area of origin \* Hospitals Crosstabulation**

		Hospitals					Total
		Much less good	Less good	Remained the same	Better	Much better	
Area of origin	Urban	20.7%	17.5%	34.6%	24.4%	2.8%	100.0%
	Rural	21.4%	28.6%	31.0%	19.0%	0.0%	100.0%

Source: made by author

Based on the contingency table shown in Table 6 it can be observed a tendency of respondents from urban areas to more positive assessments (*Better* and *Much better*) and a trend of rural to negative feedback (*Less good* and *Much Less good*). These trends would suggest that the two variables are related, but an objective decision requires the application of  $\chi^2$  test. The following statistical hypotheses were formulated:

H<sub>0</sub>: *There is no correlation between the area of origin of the respondents and their opinion about the development of the last 5 years in the level of quality of health care provided by hospitals;*

H<sub>1</sub>: *There is correlation between the area of origin of the respondents and their opinion about the development of the last 5 years in the level of quality of health care provided by hospitals.*

Testing the significance of differences between observed and expected frequencies is taken by comparing the critical report ( $\chi^2_{calc}$ ) with the theoretical value (calculated using the CHINV function in EXCEL) to a level of significance  $\alpha = 0.05$  and a number of degrees of freedom  $df = 4$ .

$$\chi^2_{calc} = 3.966; \chi^2_{0.05;4} = 9.48 \Rightarrow \chi^2_{calc} < \chi^2_{0.05;28} \quad (8)$$

**Table 7. Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.966 <sup>a</sup>	4	.411
Likelihood Ratio	4.725	4	.317
Linear-by-Linear Association	1.532	1	.216
N of Valid Cases	259		

Source: made by author

It supports the hypothesis H<sub>0</sub> in the sense that we cannot guarantee a 95% probability that the total population will be differences between expected and observed frequencies. In other words, the differences between observed and expected frequencies existing in the sample are not statistically significant in order to guarantee a 95% probability that there is relationship between the two variables. (Constantin C. , 2010, p. 188)

In conclusion, there is no correlation between the area of origin of the respondents and their opinion on the evolution in the last five years the level of quality of health care provided by hospitals.

Next, we will try to emphasize whether there is a correlation between patients ' opinion about trends in the quality of health services from Romania in the last five years and them country region of origin. In order to test this hypothesis, the responses to the questions were grouped into eight regions depending on the origin of the respondents. The percentages obtained for each of the eight regions are shown in Table 8.

**Table 8. Country region\* Hospitals Crosstabulation**

		Hospitals					Total
		Much less good	Less good	Remained the same	Better	Much better	
Country region	North - West	9.1%	9.1%	36.4%	36.4%	9.1%	100.0%
	Centre	45.5%	9.1%	36.4%	9.1%	0.0%	100.0%
	North - East	25.0%	16.7%	30.6%	19.4%	8.3%	100.0%
	South - East	21.6%	23.5%	45.1%	9.8%	0.0%	100.0%
	South - Muntenia	21.3%	8.5%	44.7%	21.3%	4.3%	100.0%
	Bucharest - Ilfov	16.7%	26.2%	22.6%	34.5%	0.0%	100.0%
	South - West	12.5%	12.5%	12.5%	62.5%	0.0%	100.0%
	West	27.3%	27.3%	45.5%	0.0%	0.0%	100.0%

Source: made by author

As shown in Table 8, percentage obtained on the evolution of the quality level of medical services provided by hospitals in the past five years varies depending on the region of origin of the respondents. Favorable opinions can be seen from the respondents in the North - West (*Much better* - 9.1% and *Better* - 36.4%), North - East (*Much better* - 8.3% and *Better* - 19.4%) and from the respondents in the South - West, Bucharest - Ilfov and South - Muntenia. The most unfavorable opinions have the respondents in the Central region (*Much less good* - 45.5% and *Less good* - 9.1%) and respondents in the West (*Much less good* - 27.3% and *Less good* - 27.3%).

These trends would suggest that the two variables are related, but an objective decision requires the application of  $\chi^2$  test. The following statistical hypotheses were formulated:

$H_0$ : *There is no correlation between the region of origin of the respondents and their opinion about the development of the last 5 years in the level of quality of health care provided by hospitals;*

$H_1$ : *There is correlation between the region of origin of the respondents and their opinion about the development of the last 5 years in the level of quality of health care provided by hospitals.*

**Table 9. Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	51.599 <sup>a</sup>	28	.004
Likelihood Ratio	54.526	28	.002
Linear-by-Linear Association	.011	1	.917
N of Valid Cases	259		

*Source: made by author*

Comparing the critical report ( $\chi^2_{calc}$ ) with the theoretical value to a level of significance  $\alpha = 0.05$  and a number of degrees of freedom  $df = 28$ , the following results were obtained:

$$\chi^2_{calc} = 51.599; \chi^2_{0.05;28} = 41.33714 \Rightarrow \chi^2_{calc} \quad (9)$$

$H_0$  hypothesis is rejected, accepting  $H_1$ . There is correlation between the country region of origin of respondents and their opinion on the evolution in the last five years the level of quality of health care provided by hospitals.

#### 4. CONCLUSIONS

Analysis of the general results obtained as a result of the research carried out shows that according to patients' overall quality of care from Romania are considered as a medium one.

Further to the detailed analysis of the respondent's answers, these findings have resulted:

- From the perspective of patients, the quality of health services shows average around 3 - Neutral, both in the primary care and the outpatient care. For a sensitive appreciation worst enjoys hospitals, with an average of 2.78;
- Greatest appreciation enjoys PPM - *Professionalism of medical staff* averaged 3.39, followed by RPP - *Price/quality ratio* (3.25) and SPM - *solicitude medical staff* (3.19). By empirical testing of the research hypothesis, we guarantee a 95% probability that the population investigated that the average assessments of the quality of health services based on PPM -, SPM and PRC is more than 3 on a scale of 1 to 5;
- Negatively are appreciated (below the average of 3) DM - *Provide material* and TA - *Waiting time*. By empirical testing of the research hypothesis, we guarantee a 95% probability that the population investigated the average assessments of the quality of health services based on DM and TA is less than 3 on a scale of 1 to 5;
- Assessment of dynamic development in the last five years in the level of quality of health services provided by the three types of care present similar values to the one valid for today. DAMP - *Primary care* and DAMA - *Outpatient medical care*, lies around average 3 - *Has remained the same*, and the DS - *Hospitals* has an average value of 2.67;
- Contrary to expectations, there is no correlation between the area of origin of the respondents and their opinion on the evolution in the last five years the level of quality of health care provided by hospitals;

- There is correlation between the country region of origin of respondents and their opinion on the evolution in the last five years the level of quality of health care provided by hospitals. Favorable opinions can be seen from the respondents in the North-West, North-East, South-West, Bucharest-Ilfov and South-Muntenia and the most unfavorable opinions from respondents in the Central and West.

Despite the inherent limitations of an online survey, consisting of the possibility of being included in the population investigated only Internet users, this research has the merit of proposing an assessment of the level of quality of health services from Romania throughout the country, in the sample being included respondents from all eight regions. Also, make an assessment of the most important types of medical care (primary care, outpatient care and hospital), taking into account the six dimensions of quality.

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