

The Role of Access to Healthcare in Self-rated Health in Romania, from a European Comparative Perspective¹

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Abstract: This paper investigates the contribution of the socioeconomic status and access to healthcare toward subjective health in Romania, when compared to two groups of countries: the Central and Eastern European, and the Nordic and Western countries. This data come from the European Quality of Life Survey (EQLS) 2012. Two models are examined, with the help of logistic regression: one testing the contribution of socioeconomic status on self-rated health, and one testing the influence of access to healthcare on self-rated health. In line with previous research, the results showed that the socioeconomic status contributes significantly to the health status in Romania, as well as the two country groups, although there was evidence of greater social and economic inequalities in Romania. Similarly, access to healthcare was proven to be a key universal factor influencing self-rated health, but in Romania, it showed a higher extent of variation in the self-perceived general health.

Keywords: *access to healthcare; health inequalities; EQLS.*

Cuvinte-cheie: *acces la servicii de îngrijire a sănătății; inegalități în sănătate; EQLS.*

Introduction

This paper aims to analyse the role that healthcare access and socioeconomic status play in self-rated health in Romania from a European comparative perspective. It is an endeavour to understand whether Romania differentiates itself from the other countries in Central and Eastern Europe, and from the Nordic and Western countries, with regard to the contribution of individual characteristics delineating socioeconomic status, and access to healthcare to the perceived health status. The focus of this paper is Romania due to the poor situation of the health status of its population, healthcare and inequalities in health (Pop, 2010; Olaru, 2013; Precupețu et al., 2013; Iacobuta et al., 2015).

A considerable amount of the literature explains the relationship between socioeconomic status and health status, as well as health inequalities. While numerous theories have concentrated on the role of socioeconomic status, access to healthcare was less surveyed. Access to healthcare is seen as a basic right in modern societies, and it is considered common knowledge that generalized access to healthcare will ensure a good health status in the population. Building an equitable universal healthcare system is regarded as a priority for all countries believing that “neither cost nor social exclusion should be a barrier to treatment” (WHO, 2013). Several EU documents (European Parliament, 2011) draw attention to the key role of the access to healthcare in determining health inequalities,

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apart from the economic, environmental and lifestyle-related factors. However, despite partial comparisons among few European countries (FRA, 2013) there is less detailed information on the role of access to healthcare in determining health inequalities from a European comparative perspective, even though it has been shown that “there is little evidence that inequity of access to health services is a major contributor to health inequities in the North, West and South of Europe, but it quite likely makes a significant contribution to larger inequities in mortality in many countries to the East” (WHO, 2013). So far, the literature has concentrated mostly on particular issues, like immigrants’ access to healthcare (Kuczewski, 2011), the specific access of disadvantaged populations by ethnicity, age or gender (Verhagen et al., 2014; Law and Vanderslice, 2011; Hanssens et al., 2016), access to particular services or technologies, or to new discoveries and innovative medical technologies (Klaufus et al., 2014; Dowrick et al., 2016). However, it has been pointed out that there is a need to identify the most relevant mechanisms that underlie the correlations between socioeconomic status, health and the utilization of healthcare, since “current knowledge tends to emphasize the need for policies directly targeted at socioeconomic status and health, rather than access to healthcare only” (Apouey, 2013).

In this paper, we first describe the specific background of Romania in the field of health and healthcare, based on indicators measuring access to healthcare and health inequalities. Since our analysis is situated within the framework of health inequality research, we then review the literature explaining the contribution of socioeconomic status to health inequality, while we also look at the role of access to healthcare in determining health status as revealed by previous research. Third, we look descriptively at subjective health and systematic differences in self-rated health in the socio-demographic groups in Romania, as well as two country groups: the Nordic and Western European countries and the Central and Eastern European countries. Fourth, two models of logistic

regression are employed in order to explain the variations in subjective health, and to understand the role that socioeconomic status and access to healthcare play in the different contexts posited by Romania and the two groups of countries. Finally, we concentrate on the significance of the results obtained for the specific situation of Romania, with regard to health status and access to healthcare.

Background of Romania: a myriad of issues in the field of health and healthcare

As pointed out in a recent European Commission country report (EC, 2015), the Romanian healthcare system faces a multitude of issues: poor health outcomes, poor financial and geographical accessibility (especially in rural areas), low funding and inefficient use of resources, high reliance on in-patient services, the low capacity of the hospital network, weak and fragmented referral networks and the low proportion of spending directed at primary healthcare. To these are added the broad use of informal payments in the public healthcare system that impair the accessibility, efficiency and quality of the system even more.

The governmental expenditure on healthcare as a percentage of the GDP in 2012 was 4.4%, the fifth lowest in the EU. When looking at the total financing of healthcare, Romania ranks lowest in the EU, with 5.6% of the GDP, similar to countries like Estonia (5.8%) and Poland (6.3%), and far from countries like France (11.8%) or Belgium (10.9%) (Eurostat, 2012 or the nearest year data). Moreover, spending on healthcare was reduced as a result of the latest economic crisis, which determined a decreased pace of investment in the healthcare infrastructure, and turned into a key issue in a country like Romania that had low public expenditures on healthcare long before the crisis (Eurofound, 2014). In addition to low spending, lack of access to healthcare further completes a problematic picture of healthcare in Romania, and this is comprised of several dimensions (OECD, 2014).

First, an important dimension to consider is healthcare coverage, which enables access to medical goods and services and provides financial protection against illness. In Romania, as in most European countries, the healthcare system aims at universal coverage. In 2013, this coverage included 85% of the population, with 89.8% in the urban and 75.3% in the rural areas (CNAS, 2014). However, there are some categories of individuals that are not fully covered, and only entitled to emergency care: persons working in the grey economy without formal contracts, the poor in urban areas who do not qualify for the minimum income, those living in rural areas involved in subsistence agriculture and part of the Roma population (Dobos, 2006). Although voluntary insurance is available, it has been estimated that only a small portion of these uncovered individuals are able to take advantage of this opportunity due to the costs involved. In the past years, the stricter implementation of entitlement criteria for the minimum income, which guarantees health insurance, may have led to an increase in the number of uninsured individuals (Eurofound, 2014).

A second dimension of access is out-of-pocket medical spending. When high, this type of spending transfers some of the responsibility to those who use the services more (including low-income earners). Out-of-pocket payments are expenditures borne directly by patients, in which insurance, either public or private, covers the full cost of the healthcare goods or services. Out-of-pocket payments are relatively low in Romania, when compared to the other EU countries. At a level of 1.06% of the GDP, Romania still has higher out-of-pocket payments than countries like the Netherlands (0.7%) and France (0.87%), but much lower than Hungary (2.25%) and Greece (2.64%) (Eurostat, 2012). These types of payments include cost-sharing and other expenditures paid directly by private households, as well as the estimations of informal payments to healthcare providers (OECD, 2014; Vladescu, 2008). Despite the relatively low reliance on out-of-pocket payments to finance healthcare that is evident from the data,

it has been revealed that in Romania (similar to countries like Turkey, Ireland and Croatia), the probability of perceived inability to access care is high (Cylus and Papanicolas, 2015), which suggests, at least for Romania, the existence of important structural problems impeding access.

A third important component of access is the number of healthcare providers in the different geographic regions in the country. Physician density has a significant impact on the utilization of most healthcare services over the course of one's life (WHO, 2013). The shortages of physicians in certain regions can increase the travel times or waiting times for patients, and result in unmet healthcare needs. The uneven distribution of health services is an important concern in Romania, given the rural, isolated and sparsely populated communities.

When compared to EU countries, Romania has the lowest number of physicians per 100,000 people (264), with the exception of Poland (224) and Slovenia (262). Moreover, there are great disparities between the Nomenclature of the Territorial Units for Statistics (NUTS) 2 regions in what is considered to be physician density. More developed regions, like București-Ilfov and the Northwest, have physician densities up to 5 times higher than poorer regions like the Southeast and South Muntenia (Eurostat, 2013). In 2011, the number of rural inhabitants per medical doctor was seven times higher than in the urban areas (European Commission, 2015).

In Romania, the hospital bed supply is intermediate, but higher than in the EU-15 countries (WHO, 2012). In April of 2011, 67 public hospitals in small communities (about 15% of the country's public hospitals) were closed. The people living in these areas have become more vulnerable to poor healthcare access, especially those with limited mobility or who cannot afford transportation costs (Eurofound, 2014).

Another major problem affecting access is the high migration of medical personnel. Among the Eastern and Central European countries, Romania experienced the highest

migration of medical professionals to EU countries in 2007 [4,990 doctors (10% of all doctors) and 1813 nurses] (Eurofound, 2014). As recently as 2014, 2,450 doctors, representing 6.3% of the total number of doctors, obtained their professional certificates in order to work abroad. Currently, the number of doctors working in Romanian hospitals is half of the total number of personnel needed (13,521 vs. 26,000) (Romanian College of Physicians, 2015).

A final important dimension of access, unmet medical needs (care was too expensive, waiting time was too long or the distance to travel was too far), contributes to the difficult situation of access. The problems that people have reported in obtaining healthcare when they needed it, often reflect significant barriers in accessing healthcare. In 2013, 9% of the Romanian population reported unmet needs for medical examinations, the second highest proportion in the EU after Latvia (12%) (Eurostat, 2013).

To these four major components of access to healthcare, we can add a specific key factor for Romania, the issue of informal payments. According to the Special Eurobarometer 2013 (European Commission, 2014), 22% of those Romanians who had contact with medical services during the past year declared that they were asked or expected to pay a bribe for the services received, when compared to the EU27 countries' average of 2%. The informal payments, generally justified by the low salaries of medical personnel and practiced since communist times, have over time become the norm, and currently, 67% of Romanians (third highest percentage in the EU) believe that bribery is widespread in the healthcare sector (compared to the EU27 average of 33%). These payments, to the extent that they are engrained in the Romanian culture (Vladescu et al., 2008), contribute to the inequalities in healthcare, since people with higher socioeconomic status are those who can afford the extra payments and most likely benefit from better attention, shorter waiting times and careful, high quality treatment.

Health status

Generally speaking, the health of the population in Romania is rather poor, and disparities are evident at the territorial level. Indicators like life expectancy, mortality and infant mortality, which are considered to be measures of the quality of life, in general, and of the healthcare system overall, contribute to the poor picture of healthcare in Romania. In 2013, the life expectancy was 75.2 years in Romania, the fourth lowest value in the EU, and there was a large gap separating Romania from the top countries in the EU, where the life expectancy is as high as 83.2 years in Spain and 82.8 years in Italy. The difference in the life expectancy between women and men in Romania is 7.1 years, one of the highest in the EU, which has grown higher over time: in 1980, the difference between the genders was 5.3 years, but it rose to 7.5 in 2010. There are important disparities in the life expectancy based on the urban and rural populations and on the development region. This indicator is higher in urban communities (2.7-year difference for 2014), as well as in the developed regions (differences of up to 2.5 years, NIS, 2014).

The mortality rates are also high in Romania (16 deaths per 1,000 inhabitants), placing the country in second place in the EU, where the death rates vary from 8.9 in France to 17.1 in Bulgaria (per 1,000 individuals) (Eurostat, 2012). The same disparities at the territorial level, by residency and development region, as represented by life expectancy, are evident when looking at mortality. In 2014, the mortality rates varied between 16.7 in the NUTS 2 region of Southeast Oltenia, to 11.3 in the Bucuresti region, while the difference between rural and urban was 4.5 (NIS, 2014).

Infant mortality is the highest in Romania (9.2), among all of the EU countries, and 2.4 times higher than the EU average (Eurostat, 2013). Moreover, the risk of infant death is 50% higher in the rural communities than in the urban. The main causes of infant mortality are perinatal conditions (34%), respiratory illnesses (29%) and congenital diseases (25%) (Ministry of Health, 2014).

Theoretical Framework

An array of theoretical perspectives, as summarized by several authors (Arcaya, 2015; Mackenbach, 2012; Bambra, 2011), have aimed to explain the existence and persistence over time of health inequalities in all countries, even in those with generous welfare policies. Mackenbach (2012) summarized the “theories” that are most salient in the current literature explaining these inequalities. Most of these theoretical perspectives are derived from the social stratification theory, and explain health inequalities as the result of the stratification system of societies. The author concludes, based on reviewing the existing theories, that differentiation in health status might result from: 1) existing differences in the individual characteristics between the social strata, 2) the allocation of resources between the social strata, and the consequent access of individuals to these various resources, and 3) the specific value of the resources to prevent the health problems that are prevalent in that society.

Theoretical perspectives concentrate on very specific factors of inequality and range from considering health inequalities only a *mathematical artefact* (Scanlan, 2006) to placing the causes of this phenomenon into material circumstances, behaviours and biological factors and psychosocial determinants.

The *fundamental causes* theory (Phelan et al., 2010) situates the sources of the health inequalities in the stratification system of the society, and maintains that the existing social inequalities are those that determine the health inequalities, and not the risk factors, like behaviour, psychosocial stress or working conditions. From this perspective, the resources associated with the socioeconomic status (money, knowledge, prestige, power and beneficial social relationships) are those protecting a person's health. Those who are able to deploy these flexible resources have better opportunities to avoid health risks.

In a *life course perspective* (Van de Mheen, 1998), health in adulthood is the partial result of experiences in early life, both biological and

social, since negative conditions in childhood contribute to poor health and social hardship later in life.

Health inequalities have also been proven by the proponents of the *social selection* theory to be the result of health-related selection in the process of social mobility. They consider that individuals' health influence their ability to attain and maintain socio-economic positions and resources (Haas, 2006).

Personal characteristics also have a role in explaining inequalities in health (Nabi et al., 2008) as cognitive abilities and personality traits can partly explain the differences in health between the socioeconomic groups.

Access to material resources, especially income is fundamental in the *neo-materialist theory* of health inequalities (Backlund et al., 2007), which highlighted that increases in prosperity and redistribution mechanisms have not succeeded in attenuating health inequalities.

The *psychosocial theory* looks at material inequality and links it to factors like psychosocial stress, and the lack of social support and a sense of control (Wilkinson and Pickett, 2007). The unequal distribution of these factors might contribute to health inequality. People with higher levels of education and income also have a stronger sense of control over their own lives, and this is related to healthier behaviour, and ultimately, lower rates of morbidity and mortality.

When looking at the value of resources for health gain, a perspective based on the studies of the *diffusion of innovation* emphasizes the fact that those with high socioeconomic status are the first to adopt new (healthy) behaviours. This leads to a temporarily increase the inequality between those who changed their behaviour (diet, smoking, etc...) and those who have not yet changed. Similarly, the inverse equity hypothesis concentrates on new interventions that usually reach those with higher socioeconomic status first, and increase inequality, especially in the field of preventive or curative healthcare (Victoria, 2000).

Finally, *cultural capital*, through attitudes, knowledge and competency, has a role

in determining the health status of the various socioeconomic strata (Pinxten and Lievens, 2014). Class related cultural resources interact with economic and social capital in the social structuring of people's healthcare chances and choices (Abel, 2008).

All these theoretical perspectives concentrate on the direct and specific factors of health inequalities. However, there are also attempts at integrating theoretical perspectives and enlarging the view of determinants of health and health inequalities. The framework of social determinants of health (WHO, 2010) includes both the *structural determinants* consisting in all social and political contexts (governance, macro-economic policy, social policy, public policy as well as cultural and societal values) that generate the socioeconomic position (education, occupation, income), and the *intermediary determinants* comprising material circumstances, behavioral, psychosocial and biological factors as well as the health care system itself. In this view, the distribution of social determinants of health within or across populations will determine the makeup of health inequalities.

Similar models (Barton and Grant, 2006; Huynen et al., 2005) that tried to map the complexity of the pathways leading to health outcomes and health inequalities have been developed lately.

Theoretical frameworks are built on the well established relationships between the various determinants and health. However, there is still need for a deeper insight into the nature of this relationship (Krumeich and Meershoek, 2014) and studies on particular countries not only can reveal the specificities of the local contexts but can also contribute to building policy tools.

Recently, Cylus and Papanicolas (2015) suggested that in some European countries there are structural factors, such as poor quality care and unequal distribution of healthcare services, which act as important barriers to access. Costa-Font and Gibb (2009) showed that the inequalities in health and healthcare in Spain appear to be driven by inequalities in use (along with income inequality).

In case of Romania, there seems to be an increasing awareness of health inequalities and of the issues in access to health care. There is a wide consensus on the existence and the magnitude of health inequalities in Romania (Olaru, 2013; Precupețu et al., 2013; Iacobuta et al., 2015), while Vasile (2013) demonstrated that difficulties in accessing healthcare with regard to cost and time have a significantly negative impact on the quality of life of individuals, as measured through life satisfaction.

Health inequality determined by socioeconomic inequality is a universal feature in all societies, despite the efforts of welfare states to minimize these disparities. It is arguable whether these inequalities are unfair, and Mackenbach (2012) maintains that "because health is not a 'good' that lends itself for redistribution, the unfairness of health inequalities does not automatically follow from their existence" (p. 767). With regard to the differentiated access to a high level of health, there is no doubt that inequalities resulting from unequal access are unfair, and can be avoided.

Methods and Analysis

In this paper, we have employed two models: one testing the influence of socioeconomic status on subjective health, and one testing the influence of access to healthcare, while controlling for socioeconomic status. This analysis does not aim to provide a full explanatory model, but to understand the role of access in self-rated health.

A logistic regression was carried out on Romania and the two groups of countries (Nordic and Western countries, Central and Eastern Europe). The data come from the third wave of the European Quality of Life Survey² (EQLS), which is a pan-European survey focused on the quality of life, carried out every four years by the European Foundation for the Improvement of Living and Working Conditions. The EQLS provides information on many areas relevant to the quality of life, including economic resources, employment, health, family status,

social support, perceived quality of society and subjective well-being. The version we relied on, the third EQLS (2011–2012), was carried out using nationally representative samples in 34 countries: the 27 EU Member States at the time and Croatia, Iceland, FYR Macedonia, Montenegro, Serbia, Turkey and Kosovo. Our analysis was carried out for the 28 present EU Member States.

Variables

The dependent variable in our analysis was the self-rated health status, which was measured on a five point scale based on the question, “In general, would you say your health is ... 1) very good, 2) good, 3) fair, 4) bad or 5) very bad?” In our analysis, the variable self-rated status was recoded as a dummy variable, with code 1 consisting of the answers ‘bad’ and ‘very bad’, and 0 consisting of ‘fair’, ‘good’ and ‘very good’. Previously, the variable was similarly considered in inequality analysis (Eurofound, 2013). Self-reported health is a useful measure of one’s health status, because it is associated with morbidity (Manor et al., 2001), and is a good predictor of mortality (Burstrom and Fredlund, 2001).

Previous studies have looked at self-reported health, and currently, there is increasing interest in understanding the social factors that contribute to the health status measured through peoples’ perceptions (Eikemo et al., 2008; Mansyur et al., 2008). Mackenbach (2008) also looked at inequalities in self-rated health, even though he concentrated mainly on inequalities in mortality and morbidity in Europe based on socioeconomic status. He found evidence that throughout Europe, worse health is found in lower socioeconomic status groups. Even though the pattern of inequality described by this subjective indicator is less pronounced and different than that described by objective indicators like the death rate (for example), inequalities in self-rated health by country are distinctive, when analysed by income and educational level. Income related inequalities in self-assessed health tend to be

larger in Northern Europe than in the Eastern and Baltic countries, while education induced inequalities are the highest in countries like Portugal and Slovenia, but less evident in some Western countries like Germany, France or Belgium.

The main independent variables in our analysis are socioeconomic status and perceived access to healthcare, and we used controls for gender, age, education level, employment status, household size and residence.

The gender variable was recoded as a dummy variable of 1 for ‘female’ and 0 for ‘male’. The respondent’s age was measured in years. The variable for household size counts the number of members in the household. Education was recoded into three levels, primary education, secondary education and tertiary education, and we used it as a dummy variable, with tertiary education as the reference.

In the EQLS (2011–2012), the subjects were allowed to choose the residence area where they lived based on the following (Q49): “Would you consider the area in which you live to be ... 1) the open countryside, 2) a village/small town, 3) a medium to large town or 4) a city or city suburb?” The variable was recoded as a dummy variable, coding 0 for ‘urban’ and 1 for ‘rural’. The variable was recorded first in the database as 0 for ‘countryside or village’ and 1 for ‘town or city’. Afterwards, we transformed it in dummy coding to 0 for ‘urban’ (town and city) and 1 for ‘rural’ (countryside or village).

In this survey, the employment status was measured through the use of the following categories: employed, unemployed, unable, retired, homemaker, student and other. In our analysis, this variable was recoded into our categories: employed, retired, homemaker and other, due to the low number of individuals in some of the categories. The variable was used as a dummy, with the reference category being ‘other’.

Although the socioeconomic status is best measured with the help of income, we used deprivation in our analysis, since it has become increasingly recognised (Whelan and Maître, 2013) as a measure of economic vulnerability.

Our dataset was missing many cases of the income variables (16.6% of the sample in Romania, 25.3% for the Nordic and Western European countries and 22.9% for the Eastern and Central European countries), and the use of income would have contributed to a significant reduction in the sample.

Deprivation was measured by asking the participants to indicate which items they cannot afford: 1) to keep their home adequately warm, 2) to replace any worn-out furniture, 3) a meal with meat, chicken or fish every second day, 4) buying new, rather than second-hand, clothes, 5) having friends or family over for a drink or meal at least once a month, 6) a week-long annual holiday away from home and 7) to pay bills/arrears (mortgage or rent, utility bills or purchase instalments). The variables were recoded as 1 for 'no, cannot afford it' and 0 for 'yes, can afford it if desired', and a summative deprivation index was computed, considering values between 0 and 7. The Cronbach's alpha coefficient for the deprivation index was 0.657 for the sample of the EU28 countries.

Access to healthcare was measured in the EQLS by asking the subjects whether they had difficulty, and in what regard, considering: 1) distance to doctor's office/hospital/medical centre, 2) delay in getting an appointment, 3) waiting time to see the doctor on the day of the appointment, 4) cost of seeing the doctor and 5) finding time because of work, childcare or other responsibilities. The variables were measured using a four point scale: 1) very difficult, 2) a little difficult, 3) not difficult at all and 4) not applicable/never needed to see a doctor. A summative index of the perceived healthcare access was computed based on these five items, and each variable was recoded as a dummy: 1 for the answers 'very difficult' or 'a little difficult' and 0 for 'not difficult at all' ('not applicable/never needed to see a doctor' was declared missing). The summative index takes the values between 0 and 5, and the Cronbach's alpha for the access to healthcare index was 0.749 for the sample of EU28 countries.

Country groups

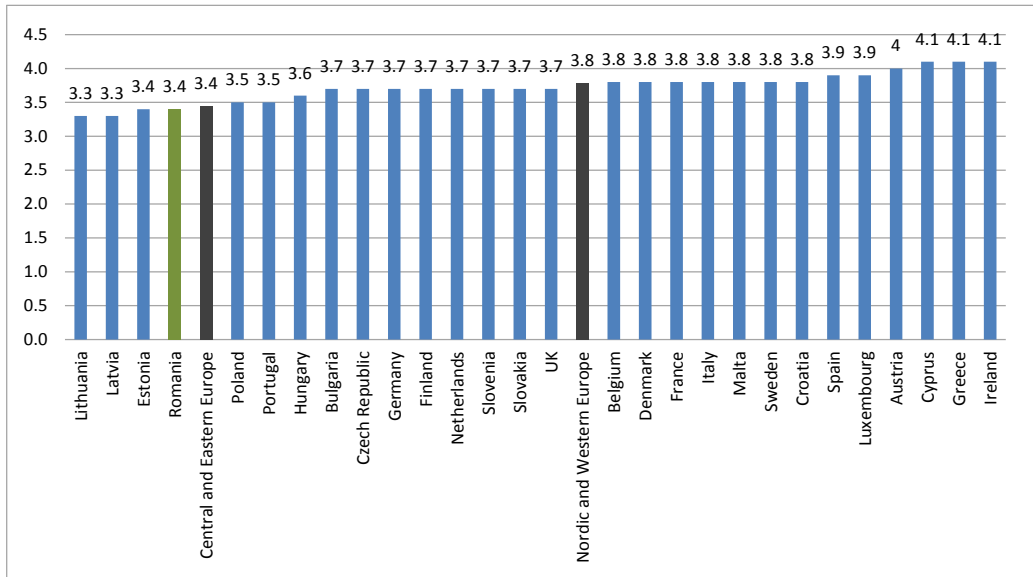
In our analysis, in order to compare Romania to the EU countries, we used two groups of countries: Nordic and Western countries (Denmark, Finland, Sweden, Austria, Belgium, Germany, France, Luxembourg, Netherlands, Ireland, UK, Italy, Malta, Portugal, Spain, Cyprus and Greece), and Central and Eastern Europe (Estonia, Lithuania, Latvia, Croatia, Czech Republic, Hungary, Poland, Slovakia, Slovenia and Bulgaria). For our choices, we relied on a previous analysis using the same data (Eurofound, 2014b), that showed that, in terms of self-rated health, there are two different groups of countries, but within each group, the countries are similar (with the exception of Portugal, which displays higher levels of health problems than the other countries in that group).

Descriptives

Romania exhibits the fourth lowest value for the subjective health status in the EU, being situated close to countries like Lithuania, Latvia and Estonia.

The descriptive analysis verifies the systematic differences in the self-rated health status based on the socioeconomic status in Romania, the Nordic and Western European countries, and the Central and Eastern European countries (Table 1).

Figure 2 shows the perceived difficulty in accessing healthcare in Romania and the two country groups. Overall, the Romanians had greater difficulty in accessing healthcare; for them, greatest perceived difficulties were the cost and waiting times. In Romania and the Central and Eastern countries, the distance to the doctor's office/hospital/medical centre constituted an impediment for access to healthcare to a greater degree than in the Nordic and Western countries.



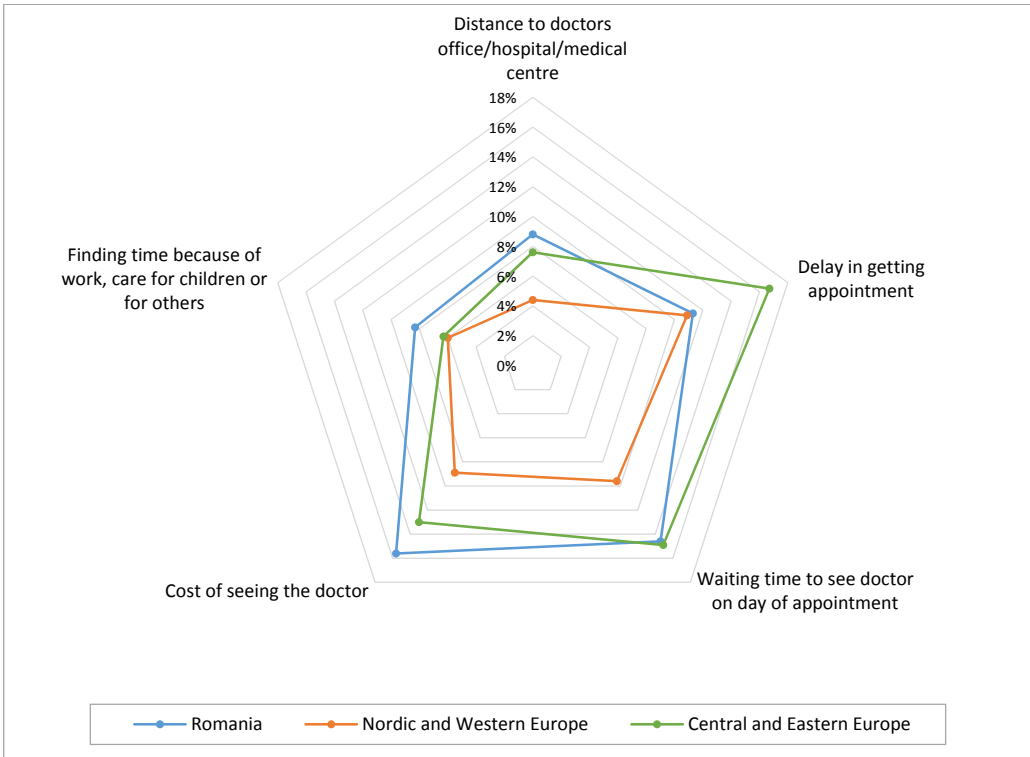
Source: EQLS 2011–2012, authors' calculations. Q42: "In general, would you say your health is ... 1) very good, 2) good, 3) fair, 4) bad or 5) very bad?"

Figure 1: Self-rated health status in European countries (means on reversed scale)

Table 1: Poor self-rated health status (bad and very bad) by socioeconomic variables (%)

		Romania	Nordic and Western Countries	Central and Eastern Europe
Gender	Male	12%	8%	14%
	Female	22%	8%	18%
Residence	Urban	11%	8%	15%
	Rural	22%	8%	18%
Education level	Primary or less	59%	17%	40%
	Secondary	15%	7%	16%
	Tertiary	3%	4%	9%
Employment status	Employed	4%	3%	5%
	Retired	43%	15%	32%
	Homemaker	14%	7%	12%
	Other	5%	13%	15%
Age of the respondent	18–24	2%	2%	2%
	25–34	2%	2%	3%
	35–49	7%	6%	7%
	50–64	25%	9%	18%
	65+	48%	14%	35%

Source: EQLS 2011–2012, authors' calculations.



Source: EQLS 2011–2012, authors' calculations. Q47: "On the last occasion you needed to see a doctor or medical specialist, to what extent did each of the following factors make it difficult or not for you to do so?" 1) very difficult, 2) a little difficult, 3) not difficult at all or 4) not applicable/never needed to see a doctor.

Figure 2: Perceived access to healthcare as 'very difficult' (%)

Results

Table 2 presents the results of the logistic regression analysis for model 1, analysing the relationship between the socioeconomic status and self-rated health. This model demonstrated the association between the socioeconomic status and poor health status in Romania, as well as in the Nordic and Western countries and Central and Eastern European countries. The socioeconomic status explains the greater proportion of variance in Romania than in the other two groups of countries, which is evidence of greater social and economic inequality in the country under scrutiny here.

Education significantly influenced the self-rated health, and although in Romania primary education emerged as a significant predictor of the subjective health status, in the two other groups of countries, both primary and secondary education were important contributors to the health status. This suggests a critical gap between those people with lower education and higher education in Romania, and a more gradual contribution of the various levels of education to the subjective health status in the two country groups.

Table 2: Odds ratios for the predictors of self-rated health in the model including the socioeconomic variables and deprivation index

Variables in the Equation	Romania		Nordic and Western Europe		Central and Eastern Europe	
	B	Exp(B)	B	Exp(B)	B	Exp(B)
Female	0.36	1.43	0.06	1.06	0.01	1.01
Primary education (reference tertiary education)	0.99*	2.68	0.38**	1.47	0.65**	1.91
Secondary education (reference tertiary education)	0.57	1.76	0.26*	1.30	0.25*	1.28
Age (+18)	0.03**	1.03	0.03**	1.04	0.04**	1.04
Employed (reference other)	-0.10	0.91	-1.48**	0.23	-1.04**	0.35
Retired (reference other)	1.17*	3.23	-0.74**	0.48	-0.24*	0.79
Homemaker (reference other)	0.09	1.09	-1.22**	0.30	-0.45	0.64
Household size	0.11	1.11	-0.05	0.95	-0.03	0.97
Rural	0.39	1.47	-0.01	0.99	0.11	1.11
Deprivation index	0.32**	1.38	0.24**	1.28	0.25**	1.29
Constant	-5.86**	0.00	-4.05**	0.02	-4.60**	0.01
Cox & Snell R Square	0.24		0.07		0.16	
Nagelkerke R Square	0.38		0.16		0.28	

**p < 0.001; *p < 0.05

Source: EQLS 2011–2012, authors' calculations.

In a similar way, age was a significant predictor of self-rated health in Romania, the Nordic and Western countries and the Central and Eastern European countries. Romania does not differentiate itself from the two country groups with regard to the contribution of higher age to a poor health status; however, the employment status described a radically distinctive picture. Being employed significantly influenced the subjective health status in the two groups of countries, but not in Romania. Being employed in this country did not provide the cushioning against poor health that seemed to be provided in the two country groups. This suggests that in Romania the healthcare coverage offers a low level of medical services in an analogous way to those having different employment statuses. At the generally low level of income in Romania, the advantage of being employed likely provides few people with the means to achieve better health. Moreover, being retired was a significant predictor of a poor health status in Romania; however, retirement negatively influenced poor self-rated health in

the two groups of countries. This data suggests poor health circumstances characterising the retired population. Being significantly concentrated in rural areas with lower quality services, having lower incomes and being more socially isolated could create a pool of factors impacting the specific situation of the retired in Romania. Quite the reverse, the data for the two country groups suggested a certain protection from poor health that people in retirement enjoy.

Deprivation emerged as a significant predictor of poor health in Romania as well as in the Nordic and Western countries and the Central and Eastern European countries. However, the effect of deprivation on poor health status was stronger in Romania, suggesting the greater importance of material conditions on the health status than in the two groups of countries.

The analysis showed that rural residence does not significantly influence the health status, despite the poor healthcare conditions in rural Romania. However, we suspect that this

finding was influenced by the measurement of the variable in the EQLS data, since urban and rural were not defined by their administrative

statuses, but measured by asking the respondents to assess whether they lived in the countryside/village, a small town or a city.

Table 3: Odds ratios for the predictors of self-rated health in the model, including the socioeconomic variables, deprivation index and access to healthcare index

Variables in the Equation	Romania		Nordic and Western Europe		Central and Eastern Europe	
	B	Exp(B)	B	Exp(B)	B	Exp(B)
Female	0.33	1.39	0.04	1.04	0.00	1.00
Primary education (reference tertiary education)	0.95	2.60	0.35**	1.42	0.59**	1.81
Secondary education (reference tertiary education)	0.57	1.77	0.25*	1.28	0.22*	1.25
Age (+18)	0.03*	1.03	0.04**	1.04	0.04**	1.04
Employed (reference other)	-0.08	0.93	-1.51**	0.22	-1.08**	0.34
Retired (reference other)	1.24*	3.46	-0.76**	0.47	-0.23	0.79
Homemaker (reference other)	0.16	1.17	-1.25**	0.29	-0.45	0.64
Household size	0.10	1.11	-0.06*	0.94	-0.04	0.96
Rural	0.38	1.46	-0.02	0.99	0.09	1.09
Deprivation index	0.30**	1.35	0.22**	1.25	0.22**	1.25
Access to healthcare index	0.12*	1.13	0.10**	1.11	0.22**	1.24
Constant	-6.05**	0.00	-4.13**	0.02	-4.88**	0.01
Cox & Snell R Square	0.24		0.07		0.18	
Nagelkerke R Square	0.39		0.17		0.30	

** $p < 0.001$; * $p < 0.05$

Source: EQLS 2011–2012, authors' calculations.

Table 3 presents the results of the logistic regression analysis for model 2, analysing the relationship between the access to healthcare and self-rated health, while controlling for socioeconomic status. Difficulty in accessing healthcare contributes significantly to a poor health status, in way similar to Romania and the two European country groups, proving that it is a universal mechanism. Since the explained variance of the model was higher in Romania (and the Central and Eastern European countries) when compared to the Nordic and Western countries, it is likely that in the country under scrutiny here access to healthcare is a crucial factor in determining the variations in the self-perceived general health.

Discussion

This study looked at the influence of the socioeconomic status and access to healthcare on the subjective health status in Romania, and compared it to the Nordic and Western European countries and the Central and Eastern European countries. In line with previous studies, the results emphasized the relevance of the socioeconomic status in explaining the differences in individuals' health states. The subjective health status varied based on the socioeconomic characteristics in Romania and the two surveyed groups of countries. Although it was proven that this relationship is present in all European countries, even those

with very developed welfare policies, there was evidence of greater economic and social inequality in Romania when compared to the country groups in the analysis. While the roles of age and low education were similar between Romania and the two groups of countries, it is striking that employment did not provide people with sufficient protection from poor health. This might be due to the fact that, in general, employment pays too little to offer people adequate cushioning when facing the challenges that might arise from a poor health state.

Access to healthcare clearly impacts the subjective health status in Romania and the two country groups in similar ways, proving it is a universal mechanism. Therefore, these results reinforced a widely acknowledged relationship between the quality of care and health, and emphasize the importance of universal access to healthcare in a country like Romania, which faces a great number of issues in the field of healthcare and in regard to the health status of its population.

The particular stratification system in this country might be invoked in order to explain this inequality, according to the mechanisms revealed by the theories of health inequality. During the communist regime, Romania was an egalitarian country with little stratification, while the population was homogenized in poverty (Marginean, 2004). The healthcare system was public and healthcare coverage was universal, even though the medical services and goods were provided at a low level, and were, sometimes, rationed. During the post-communist period, the society became greatly stratified, with a high proportion of the population being thrown into poverty, and a small segment of the population accumulating great wealth. In a rather polarized society, the middle classes rose very timidly, and even today, Romania is one of the most unequal countries in the EU with respect to income. At the same time, the healthcare system has been through many reforms under the pressures of the new market economy. Insurance systems have been introduced, which have been proven in the literature to have the potential to

increase the inequalities in access to care and, ultimately, the health status (Gelormino et al., 2007). Romania has been confronted with a problem that is present, to a lesser extent, in other European countries: the rural setting is not sufficiently attractive for medical personnel. In communist times, doctors received mandatory placements to rural localities, which ensured the even distribution of personnel and services throughout the country. During the post-communist transition, the isolated, aged and disadvantaged communities were impacted the most by the migration of medical personnel. Some population categories remain uncovered (those working in the grey economy without formal contracts, those working in subsistence agriculture, a proportion of Roma and the poor in urban areas who do not qualify for the minimum income). Moreover, the rural area (where 45% of the population lives), which concentrates large segments of the poor, provides problematic access to healthcare, even what is regarded as primary care. All of these have influenced equality in the health outcomes.

The social gradient with regard to the level of health in Romania can be partly attributed to the natural process of stratification that took place during the post-communist transition. However, it is possible that structural factors, like the insurance system or out-of-pocket payments, had an important bearing on the health status. For example, since informal payments are a social norm and an important tradition, they clearly provide an advantage for the high and middle classes, who can afford the “under the table” extra payment. Their income provides access not only to better information, services and medical goods, but also to better attention and care, creating an added factor of inequality.

Social stratification theory provides useful tools for understanding health inequalities in the context of Romania. However, the more complex models that introduce into explanation structural and intermediary factors determining the distribution of health can provide more appropriate frameworks in accounting

for the role of access in health inequalities. They allow for expanding explanations beyond direct and limited influences on health inequalities. Nonetheless, this study is restricted to testing such narrow influences of socioeconomic status and access to healthcare on inequalities in health. While the relationships are clear, more insight would be useful into the particular context of the Romanian society that conducted to the current situation. Qualitative studies as well as quantitative research on

structural and intermediary determinants of health are highly needed for Romania. Even though inequality in the health status based on the socioeconomic status is universal, and therefore, not necessarily an inequity, in Romania it is likely that the inequalities in health emerging from socioeconomic conditions and access to healthcare might be unfair, and have causes that can be better understood and ultimately addressed by policy.

Notes

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² European Foundation for the Improvement of Living and Working Conditions. (2014). *European*

Quality of Life Survey, 2011–2012. [data collection]. 2nd Edition. UK Data Service. SN: 7316, <http://dx.doi.org/10.5255/UKDA-SN-7316-2>.

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