

# SOCIAL DETERMINANTS OF HEALTH – ACCESS, VULNERABILITY, INEQUALITY

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## **Abstract**

The reduction of health inequalities should be a major priority for each state. The primordial objective of health strategies all over the world are the reduction of the gap or inequalities responsible for the significant differences in health status between various regions or populations. In Romania, Government Decision no. 1028 of November 18, 2014 on approving the National health strategy 2014- 2020 and the Plan of actions for the period 2014- 2020, for the implementation of the National Strategy, have the purpose of improving the health status of the population and of reducing the inequalities between the counties/ regions of the country. The reduction of health inequalities requires a focused action of the public health policy and of a series of other policies with an impact on health, among which social protection, education and environment. Although important steps were made in the field, special attention must be paid to equity, especially the equity of health services, to promote basic services for all individuals, mainly the vulnerable and disadvantaged groups. The paper proposes to highlight the determinants of health status, the main types of inequalities and the way they are found and manifested in the Romanian health system.

**Keywords:** social determinants, health system, inequalities

## **Résumé**

La réduction des inégalités dans le domaine de la santé devrait être une priorité majeure pour tout état. L'objectif primordial des stratégies de santé autour du Globe est la réduction de l'écart ou des inégalités responsable pour les différences significatives dans l'état de santé entre de diverses régions ou populations. En Roumanie, la Décision du Gouvernement no. 1028 de novembre 18, 2014 pour l'approbation de la Stratégie nationale pour la santé 2014- 2020 et le Plan des actions pour la période 2014-2020, pour l'implémentation de la Stratégie nationale, ont le but d'améliorer l'état de santé de la population et de réduire les inégalités entre les départements ou les régions du pays. La réduction des inégalités dans le domaine de la santé demande une action concentrée des politiques publiques de la santé, ainsi qu'une série d'autres politiques avec un impact sur la santé, comme par exemple la

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protection sociale, l'éducation et l'environnement. Même si on a déjà fait des pas importants dans ce domaine, il faut payer plus d'attention à l'équité, spécialement à l'équité des services de santé, il faut promouvoir les services de base pour tout individu, surtout pour les groupes vulnérables et désavantagés. L'article se propose de souligner les déterminants de l'état de santé, les principaux types d'inégalités et la manière dont on les retrouve et dont ils se manifestent dans le système roumain de santé.

**Mots-clés:** déterminants sociaux, système de santé, inégalités

### **Rezumat**

Reducerea inegalităților în materie de sănătate ar trebui să fie o prioritate majoră pentru fiecare stat. Strategiile de sănătate din întreaga lume au ca primordial obiectiv reducerea decalajului sau a inegalităților responsabile de diferențele foarte mari ale stării de sănătate dintre diferitele regiuni sau populații. În țara noastră, HG Nr. 1028 din 18 noiembrie 2014 privind aprobarea Strategiei naționale de sănătate 2014-2020 și Planul de acțiuni pe perioada 2014-2020, pentru implementarea Strategiei naționale, au ca scop îmbunătățirea stării de sănătate a populației și reducerea inegalităților dintre județele / regiunile țării. Reducerea inegalităților în materie de sănătate necesită o acțiune concertată între politica de sănătate publică și o serie de alte politici care au un impact asupra sănătății, printre care protecția socială, educația și mediul. Deși s-au făcut pași importanți în acest domeniu, un accent deosebit va trebui pus pe echitate, în special pe echitatea serviciilor de sănătate, care să promoveze servicii de bază pentru toți indivizii, cu prioritate pe grupurile vulnerabile și dezavantajate. Lucrarea își propune să aducă în atenție determinanții stării de sănătate, principalele tipuri de inegalități și modul în care acestea se regăsesc și se manifestă în sistemul de sănătate din România.

**Cuvinte cheie:** determinanți sociali, sistem de sănătate, inegalități

## **1. Introduction**

The difficulty of elaborating a standard health-measuring method is determined, largely, by the multitude of meanings ascribed to health and by the multitude of factors that may influence the health status of the population. It has been acknowledged increasingly that health is maintained and improved not only by promoting and applying medical science, but also through individual and social lifestyle choices and through the context of individuals.

Bircher (2005) defines health as wellbeing, dynamic, characterized by a physical and mental status that satisfies the life demands of an individual in relation to the age, culture and responsibility of individuals (Saracchi 1997).

According to the classical ranking methods for the determinants of health status, there are four categories of determinants acting synergically on population health. Thus, health status is determined by (1) biological factors, (2) individual lifestyle, (3) social and community networks and general social economic, cultural and environmental conditions (Vlădescu et al. 2010) and (4) work and living standards (Dahlgren and Whitehead 1991).

The category of determinants regarding work and living conditions includes agriculture and food production, education, work environment, work and living standards, unemployment, water supply and sewerage, health and habitation services.

An important number of studies (Lalonde 1974; Naidoo and Wills 1994; WHO 2008) and reports examine in various contexts the relations between health and diverse factors, including lifestyles, environments, health organization and healthcare, health policy. World Health Organization (WHO 2014) defines as main determining health factors: social and economic environment, physical environment, individual characteristics and behaviours of a person. These factors include income and social status, social, education and alphabetisation, workplace and work conditions, physical and social environment, healthy practices and personal problem-solving skills, healthy childhood development, biology and genetics, public health services, gender and culture.

The social determinants of health are represented by the conditions in which people are born, grow up, live, work, grow old, and by the systems applied to cope with illness (Russell et al. 2012). These circumstances are determined by the distribution of money, power and resources at global, national and local level. Authors make the distinction between two main categories of social determinants: structural determinants – fundamental structures of the nation-state creating social stratification, such as country's welfare, income inequality, education status, sexual or gender standards or ethnical minorities – and proximal or intermediary determinants – living standards, from the quality of family environment and the relationships with the peers, access to food, habitation and leisure activities to access to education. Another underlined aspect is that proximal determinants are generated by the social stratification created by structural determinants and by cultural, religious and communitarian factors. Moreover, authors state that proximal determinants also establish individual differences in what concerns exposure and vulnerability to the factors compromising a person's health. Numerous studies have highlighted the close connection between socioeconomic factors (place of residence, incomes, social status, education, access to medical services, etc) and health status (MacDonald 2000).

There is a close relation between educational and biological capital: “the most educated individuals choose high-quality medical services, thus selecting the best alternatives for maintaining their health within optimal parameters” (Voicu 2005). Educational level influences the life strategies developed by people to have a good life, to maintain good health, implicitly

(Anderson 2004; Precupețu 2008), through a higher level of information and knowledge concerning health and the choice of a correct lifestyle.

Income, area of residence, social network, employment and work conditions and income redistribution are factors that influence health status (Wilkinson 1996; Doboș 2003; Voicu 2005; Precupețu 2008; Anderson et al. 2009; Siegrist, Montano and Hoven 2014; Wahrendorf and Siegrist 2014).

“The presence of a well-educated human resource with better health and fitness determines higher work productivity, better economic activity organization, higher production, better incomes. In their turn, they enable new investments in education and health, thus determining the production of a better-educated and healthier human resource. On the other hand, healthier individuals will have more chances to become educated, while better educated individuals will be more capable and disposed to prevent illnesses and to take care of their health” (Voicu 2005).

Environment is often cited (Solar and Irwin, 2006, 2007) as an important factor that influences the health status of persons. It includes characteristics of the natural environment, of the created environment and of the social environment. Factor such as clean air and water, proper housing and safe communities and roads contribute to good health, especially among infants and children. Some studies (WHO 2006) have found that the lack of recreation spaces nearby, including natural environment, leads to lower levels of personal satisfaction and higher levels of obesity. According to the WHO report (2006), 14-19% of illnesses are believed to be caused by exposure to environment that may be reduced. Over 24% of deaths and 22% of diseases among children under 14 are caused by environmental factors.

## **2. Social inclusion/exclusion indicators in the health field**

The concept of social exclusion – unlike the concept of poverty, where the focus is on income – allows greater focus on the multiple dimensions on marginalization and of the integration manner in the social space (referring to employment, housings, education, social participation, discrimination, incomes) of socially excluded persons (Weck and Lobato 2015).

Barry (2002) believes that in contemporary societies, characterized by market economy and liberal democracy, there is double stratified social exclusion that comprises the most disadvantaged people and those within higher social classes, respectively. According to Barry, social exclusion is closely related the way two values – social justice and social solidarity – are present in social institutions. By social justice, Barry refers to equal

opportunities – first of all, access to education and to a job. Without public educational services at equal standards for all children and young people, social polarization emerges, namely those with resources send their children to private or top public schools, while persons without resources do not benefit from the same opportunities. Social exclusion is favoured insofar as the participation to institutions such as those within public education and health systems reduces. Offering private alternatives, of income-based access, also leads to double exclusion (Barry 2002).

Berman and Phillips (2000) – following the literature review concerning the implications of social indicators to measure of social inclusion/social exclusion – consider the concept as being comprised within the broader theory of “social quality”. They underpin that indicators should include both objective and subjective measures, extending beyond the state or experience of exclusion, to incorporate the inclusion processes. The authors proposed eight inclusion fields: 1. social security (access to social security services, avoidance of low incomes), 2. labour market (access to jobs, employment), 3. real estate market (access to neighbourhoods, subsidized housings, lack of housings), 4. health services (access to health services), 5. education (access to educational and cultural services), 6. politics (restrictions of participation to the political process), 7. community services (access to leisure facilities and vicinity services), 8. social status (access to social and leisure activities).

Estivil (2003) proposes a much simpler ranking scheme, on three dimensions: political, social and economic. Starting from the theory of capabilities (Sen 1985), Headey (2006) proposes a different approach. The disadvantage, reflected in low incomes, low capabilities and social exclusion, along with multiple material deprivation represent, in Headey’s multidimensional analysis, the main elements. By supporting the importance of four fields (financial, employment, health and family/social), he states that low welfare is determined by low capabilities and functionalities.

Levitas (2007) proposed in Great Britain a conceptual framework of social exclusion, called *Bristol Social Exclusion Matrix* or B-SEM, made of three main domains and ten subdomains: (1) resources (material and economic resources, access to public and private services, social resources), (2) participation (economic participation, social participation, culture, education and skills, political and civic participation) and (3) quality of life (health, environment, criminalisation). The argument for introducing the conceptual framework of the health field is that illness, which may emerge as a consequence of social exclusion, may also be a cause of social exclusion. This cause/consequence type of argument is also valid in what

concerns poverty and, implicitly, in the relation between poverty and health, where illness may be both a consequence and a cause of poverty. Indicators specific to the health field are found in almost all models of social exclusion, generally embedding indicators of life expectancy at birth and self-perceived health (Levitas et al. 2007).

Specific tools are necessary to study and appraise poverty, but also to elaborate measures to fight against this scourge. Among these tools, an important role is played by statistical measures for characterizing poverty size, structure and dynamic.

At the high-level reunion of the European Union in Lisbon (2000), which deemed poverty and social exclusion as unacceptable, the Laeken set of indicators was proposed for 2001 as a method of measuring progress in the EU states. As a reply to this initiative, Stewart (2002) argued the importance of an extended set of measures, thus proposing a framework of analysis with five domains of wellbeing, which include the essential processes within the broader process of de social exclusion or inclusion. Namely, they are material wellbeing (including poverty, income distribution and housing quality), participating in productive life (measures for reducing unemployment), education (rates of coverage and results), health (mortality rates and self-perceived health) and social participation.

Laeken indicators have not been fully used to assess performance in the EU states until 2004. Even then, several cross-border studies were carried out, especially to explore: a) the relation between risk of poverty and social expenses per capita in the 25 member states, evaluated on individual households; and c) an analysis of financial benefits to work from the perspective of social inclusion (Marlier et al. 2007). Laeken indicators have also helped pointing out how policies take into account the social processes within the EU countries, though the analyses using the indicators were not comparatively accurate (Atkinson et al. 2005). Four uses of the indicators are proposed: to explain the differences between the EU states, to assist individual states in policy elaboration, to promote “common governing” by identifying where inter-sector work is necessary and to determine goals.

The Social protection committee adopted a revised set of Laeken indicators (renamed as social inclusion, but that still deals with social exclusion) in June 2006. A new measure for comparing employment rate for non-immigrants and immigrants was added to the primary list, as well as the suggestion of finding indicators for the housing and wellbeing of children (Atkinson et al. 2005). Life expectancy and self-perceived health indicators were eliminated and replaced by one indicator measuring the access to

health services and the number of visits to the physician in the past year. The commonly approved secondary indicators were rationalized to three sets: income poverty (on different categories, such as type of household, work intensity in households, activity status, housing occupation status), low educational qualifications (persons with low education level and low performance of students) and material deprivation (deprivation severity for the disadvantaged population). Despite these changes, the prevalence granted by these indicators to employment and material conditions persists (Feres et al. 2002, Atkinson et al. 2005).

### **3. Social determinants of health**

Determinants of health are defined as any factor or condition with an effect on health, the factors with an effect on health status in quantitative, measurable terms (Marcu 2002) or the causes or factors that may influence illness risk (Last and McGinnis 2003).

The Healthy People 2020 strategy<sup>1</sup> features five categories of factors determining health status. They were grouped as follows: economic stability, education, social and community context, health and health system and vicinity and environment. This new definition included determinants concerning access to higher education and child education and development programs, social cohesion and civic participation, perceived discrimination and equity, institutionalization, access to medical care services (Șoitu and Rebeleanu 2012), which should materialize in strategies and actions plans for a healthy population.

The socioeconomic determinants of health may be measured using indicators such as: GDP, net income / capita, share of the GDP allocated to health, education level, (the relation between educational level and mortality/morbidity, infant included, the relation between educational level and food, obesity, smoking, alcoholism, etc.), employment rate, unemployment, professional stress (Evans Barer and Marmor 1994)

In 1998, WHO drafted up a report showing that professional stress and personal stress are the determining factors of poor health. This report concludes that professional stress increases illness risk and that stress does not depend only on the psychological characteristics of an individual, but also on his working environment. A toxic or accident-prone work environment, a

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<sup>1</sup> [www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health](http://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health)

strenuous physical or mental activity may be further determinants of health status.

Employment and work conditions have a vital importance for the lives of many people. They impact health both directly (through work conditions) and indirectly (through income level). Both effects follow a social gradient. (Siegrist, Montano and Hoven 2014). Persons with fewer skills or in a lower socioeconomic position are more prone to be exposed to adverse condition at their workplace, physical or mental, than those with high qualifications or from higher socioeconomic classes. Less skilled employees score higher values of exposure to chemical, biological hazards and they are more frequently exposed to muscle and bone diseases. Jobs requiring strenuous demands and reduced control, as well as those characterized by misbalance between the efforts made and the rewards received are those that explain (to a significant extent) the relation between a lower professional position and increased illness risk (Hoven and Siegrist 2013).

Studies conducted concerning the association between work and inequality in the health field show that the share of the GDP spent by a country for policies meant to integrate the disadvantaged population groups on the labour market and the decrease in the average level of stressful work did not record improvements (Wahrendorf and Siegrist 2014).

The “Whitehall Study” (Marmot et al. 1991) followed throughout 15 years the health state of over 10,000 British people and confirmed that the health state is in relation with the individual’s position within the society. Persons in the decision area are less affected than those in middle management, and they suffer less than simple workers do. The more we lower the hierarchy, the more numerous health issues. Professional stress also acts upon the immune system. Employees suffering from chronic stress are three to five times more prone to respiratory viral infections than the others are, while persons facing only one stressful event throughout a year are less vulnerable (Burrow 2000). Research has shown that when employees fear losing their job, they suffer more accidents and they get sick more (Burrow 2000). Statistically, almost 3-4% of industrial accidents are caused by failure to cope with stress-driven emotional issues. Estimates show that each employee suffering from a stress-driven disease misses work about 16 workdays per year (Hellriegel 1992).

There is a relation of interdependence between labour market employment and the health status. Poor health has an impact in what concerns employment possibilities, but at the same time, lack of job/ unemployment

contributes to poor health, with several circuits: social, emotional, behavioural and material – lack of incomes has the strongest effect (Anderson 2004, 57). According to the World Federation for Mental Health (2014), “the dark face of global economy” determined a mental health crisis. Depressions and cardiovascular diseases have become a major health concern, both generated by professional stress.

The health status of people is also determined by factors acting at macrosocial level (community, region, society), such as the quality of healthcare services, the quality of the environment (Precupețu 2008). Romania spends less than 5% of the GDP on health, a low figure compared to the European average of 6.5% and the EU average of 8.7% (BM 2014). The health status of a population within a society is not determined only by economic wellbeing, but also by social inequality of incomes and by social cohesion. A higher level of income inequality determines a higher inequality in what concerns health (Wilkinson 1996).

Area of residence has implications for health status, through the lack of drinking water and sewerage, lack of electricity in some localities, poor housing conditions, poor roads, limited access to information (Doboș 2003). Social and community networks that include family play a considerable role in the health of individuals. Often, local structures ensure information services regarding health and health services. Hence, individuals receive the necessary support to play an active role in the improvement of their own health. Attaining the health potential does not depend only on providing health services but also on many other factors that must work together in an effort to increase health status and to reach the health potential of a nation. (Report of the Presidential Commission for the analysis and elaboration of public health field policies in Romania, 2008. A health system based on the citizen’s needs)

Health and poverty are closely interconnected and interdependent. Poverty has a significant contribution to poor health, while poor health, in its turn, may have a major contribution to poverty, reducing a person’s work capacity and leading to high costs for treatment and care. Poor and vulnerable persons become ill rapidly and die quicker than the general population. Poverty creates poor health through various social determinants such as the following: poor nutrition, unhealthy diet and inadequate living standards (the absence of a decent house, clean water and/or adequate cleaning). The study regarding the analysis of employment benefits in Europe showed that

higher social benefits are correlated with better health and that this relation is stronger among those with low education level. These benefits with positive effects are not limited to unemployed because their existence even seems to improve the quality of life of people who do not need them (Ferrarini, Nelson and Sjöberg 2014). Taking into account the significant influence of poverty on poor health, the benefits of minimum income represent another important component of national social protection policies. An analysis based on OECD and other data have found that countries providing a higher level of minimum income feature lower mortality rates (Nelson and Fritzell 2014).

Income represents a universal factor in determining health inequalities, at both individual and society level (Anderson et al. 2009). There is a significant correlation between educational capital, health status and economic resources; health represents an important resource for individual development, thus allowing participation on the labour market and ensuring the incomes necessary for satisfying the needs (Voicu 2005). Incomes and material living standards are important for health and they vary considerably from one social group to another. Social protection and general wellbeing state policies may reduce the consequences of income losses and they are consequently important in what concerns the reduction of inequalities in the health field (Lundberg et al. 2014).

Studies conducted concerning the association between work and inequality in the health field show that the GDP percentage spent by a country for policies meant to integrate the disadvantaged population groups on the labour market and the decrease in the average level of stressful work, did not record improvements (Wahrendorf and Siegrist 2014).

Education and professional status are closely correlated with both income-related relative poverty and measured poverty. More than a third of the persons who graduated only from middle school are exposed to poverty risk. The percentage reduces significantly, to only 15% among persons with a high school or a secondary school degree and it represents only 6% among persons with a college degree. By professional status (persons between 15 and 64 years old), the groups with the lowest poverty rates are employees and pensioners (5.6% and 8.4%, respectively). Persons with the highest poverty rates are self-employed agricultural workers, (60.6% of them in poverty) followed by unemployed persons (their poverty risk is 52.1%) (MMFPSPV, National strategy regarding social inclusion and the reduction of poverty, 2014-2020).

#### **4. Social inequalities in the health field**

The European Commission Report *State of Health in Romania and the EU*, published in 2017, shows that the Romanian health system is characterized by low funding and the inefficient use of public resources, with the lowest per capita health spending as a share of the GDP in the European Union. There are several initiatives meant to change the system, however. Romania's National Health Strategy sets out strategic objectives in the areas of public health and health care services, and is supported by the development of eight regional plans to reorganise health services and direct investment towards disadvantaged areas. Across the EU, profiles show the need to reconsider health system, to guarantee they will remain adequate and they will provide healthcare dedicated to the patient. Five transverse conclusions derive from them:

- health promotion and disease prevention facilitate the path towards a more effective and efficient health system;
- solid primary medical care effectively direct patients within the health system, thus helping them avoid useless expenses;
- integrated assistance assures the patient of coordinated healthcare;
- planning and pro-active forecast concerning health personnel are elements due to which health systems become resistant to future evolutions;
- patients should be the focus of the next, better generation of data on health, the foundation of policies and practice.

Health systems are influenced by the size of budgets and resources allocated for health (both financial and human), by geographic repartition and by social inequalities. The quality of services and the access to medical care include infrastructure, equipments and the number of health specialists.

According to the “National health strategy 2014-2020”, Strategic intervention area 2: Health services, general objective GO 4 states equal access to quality health services especially for vulnerable groups. The quality of medical care plays a key-role in ensuring high levels of public health. Primary and community medical care are specific objectives of the national strategy.

Primary medicine represented by family medicine is very heterogeneous in terms of structure and form or organization; it is not evenly distributed across the territory; there are differences between counties and especially between urban and rural. The distribution of family physicians by county, by property form and repartition by population (for 100,000 inhabitants)

varies. According to INS data, in 2016 there were 57,300 physicians, which means an average of 345 patients per physician (INS 2017<sup>2</sup>).

According to INS, most family physician practices functioned in the urban areas, 6,700 practices compared to 4,600 practices in the rural areas. In addition, of all the physicians, 21.5% were family physicians, almost two thirds of them conducting their activity in the cities.

While in the urban areas, 10,400 independent specialized medical practices functioned, in the rural areas their number was 27.2 times smaller, namely only 381 practices. Consequently, the number of inhabitants corresponding to an independent specialized medical practice was 23.4 times higher in the rural areas, compared to the urban areas. In the year 2016, for 10,000 inhabitants in the rural areas, there were only 0.4 independent specialized medical practices compared to 9.8 practices in the urban areas. The higher number of inhabitants for a medical and health professional highlight discrepancies by residence areas regarding ensuring medical staff for the population. Hence, in the rural areas there were 7.9 times more inhabitants for a physician; 6.1 times more inhabitants for a dentist and 4.0 times more inhabitants for a pharmacist, compared to the urban areas (INS 2017).

Strategic objective 4.5 within the national strategy aims to improve the performance and quality of health services by regionalizing/concentrating hospital medical care (ANNEX 2 Action plan for 2014-2020 for the implementation of the National strategy<sup>3</sup>).

The health unit network underwent modifications in the year 2017 compared to the year 2016. The most significant changes were represented by an increase by 325 of the number of independent specialized medical practices, by 216 of the number of independent dental practices and by 205 of the number of pharmacies. At the same time, there was a significant decrease in the number of independent family physician practices: 219 practices fewer than in the year 2016. The medical network had in the year 2017 a number of 576 hospitals, 9 more units compared to the year 2016. Of all the hospitals functioning in the year 2017, only 338 hospitals were large units (with over 100 beds for continual hospitalization or for day hospitalization), while 166 hospitals were small units, with fewer than 50 beds.

The distribution of health unit network by residence areas underlines that the health network developed mainly in the urban areas, where the following

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<sup>2</sup> Activity of health units in 2016, Press release, issue 161 of June 30, 2017,

[http://www.insse.ro/cms/sites/default/files/com\\_presa/com\\_pdf/activ\\_unit\\_sanitare16r\\_0.pdf](http://www.insse.ro/cms/sites/default/files/com_presa/com_pdf/activ_unit_sanitare16r_0.pdf)

<sup>3</sup> <http://www.ms.ro/wp-content/uploads/2016/10/Anexa-2-Plan-de-actiuni.pdf>

were identified: 91.3% of all the hospitals and 93.1% of all outpatient units attached to hospitals and of specialized outpatient units, 92.3% of all diagnostic and treatment centres, 97.8% of all medical clinics, 98.6% of all polyclinics, 98.8% of specialized medical centres, 98.2% of ambulance, patient transport and SMURD units, as well as all mental health centres, blood transfusion centres and TB sanatoriums. Most medical practices also functioned in the urban areas: 59.5% of all independent family physician practices, 85.8% of the independent dental practices, 85.8% of independent family physician practices, 96.4% of independent specialized medical practices, 95.4% of other types of medical practices (work physician practices, company practices, medical expertise and recovery of work capacity practices, etc), 99.1% of school medical practices, 99.5% of school dental practices, as well as all medical and dental practices for college students.

The urban areas also comprised 68.1% of the pharmacies, 95.7% of the dental technique labs, 96.0% of medical labs, as well as 7 of the 8 balneary sanatoriums.

The social care system provided, in the year 2017, medical care services in 192 residential units for the elderly (65.6% of the units in the urban areas), 525 residential centres for disabled persons (69.3% in the urban areas) and in 96 day-care centres, also for disabled persons (most of them situated in the urban areas).

In the rural areas, primary medical care was ensured by 40.5% of independent family physician practices. At the same time, 50 hospitals with 25 outpatient services, 7 specialized outpatient services, two centres of diagnostic and treatment, one of the two neuropsychiatry sanatoriums provided specialized medical care in the rural areas. Furthermore, in the rural areas, 59.1% of the social and medical units functioned, 66.6% of the drugstores and pharmaceutical working points, 6 of the 10 health centres with hospital beds, 3 of the 10 multifunctional centres, as well as the two existing prevention centres.

In the year 2017, 323,689 health professionals served the health system. Among them, 34.7% (112,233 persons) were health professionals with higher education (physicians, dentists, pharmacists, physical therapists and kinesiotherapists, nurses and other health staff: biologists, chemists, etc), 43.9% (142,103 persons) were health professionals with higher secondary degrees and 21.4% (69,353 persons) were auxiliary health professionals. In the year 2017, the number of physicians was 58,583 (2.2% more than in the year 2016), of dentists – 15653 persons (4.8% fewer compared to the previous year), while of pharmacists – 17,833 persons (3.8% more compared to the year 2016) (Iagăr, 2018).

The distribution of health personnel by residence areas is determined by the territorial repartition of health units. The rural areas is seriously deprived also concerning infrastructure and institutions facilitating social participation. Rural physicians are overloaded, while persons over 65 years old find it hard to get to a consult. Several common reports regarding social protection and social inclusion identified barriers to access, including the lack of health insurance coverage, the direct financial costs, the geographic differences in what concerns service availability, the waiting times and the cultural obstacles. At the same time, high private medical expense rates as share of household income may prevent socioeconomic groups with lower incomes from accessing medical when they need it, which entails significant health inequalities. Social exclusion, in its European definition, involves – among other dimensions – a lack of connection to the communication and information systems, connecting the individuals to one another and the individuals and the collective. In this respect, topics arise such as banking integration (and access to credits), investments, insurances, media, telephone, cultural institutions. In the Romanian rural areas, financial-banking infrastructure and cultural infrastructure (theatres, museums, cinema) are underdeveloped, especially in the rural areas. The monetary integration degree is very low, while the use of insurance tools is also faulty (only a small part of the rural households with land ensure their agricultural production) (Rural Euro-Barometer 2002). Almost all rural communities in Romania include a village a commune centre and one or more “peripheral” villages. The rural population of the country is divided almost equally between centre villages and peripheral villages. While centre villages concentrate the administrative and institutional resources (town hall, police, post office, health unit, coordinating school, community centre), most pertaining villages only have a church and sometimes an elementary school. Furthermore, infrastructure facility discrepancies are striking: most pertaining villages only have non-modernized roads; they do not have a telephone system, sewerage or running water (Paraschiv 2008).

Upon analyzing globally the performance of the Romanian health system in the international context and taking into account the concept of performance provided by WHO (2000) – focusing on three fundamental pillars: 1. health improvement; 2. increase in response capacity compared to the expectations of the population; 3. ensuring equity in what concerns financial contribution – it is worth noting that Romania ranks the 99<sup>th</sup> worldwide. Thus, it is behind countries like Albania (55), Slovakia (62), Hungary (66), Turkey (70) or Estonia (77) (Report of the Presidential

Commission for the analysis and elaboration of public health field policies in Romania 2008, *A health system based on the citizen's needs*, p. 7<sup>4</sup>).

In Romania, there is a great difference between counties/regions concerning the network of health services (ensuring medical staff, advanced medical technologies, diagnostic and treatment services, dental care, home care, rehabilitation, etc). Some counties ensure such services for adjacent counties, too (services of dialysis, cardiovascular surgery, transplant). The analysis of ensuring medical and health staff by residence areas shows significant inequalities for some categories of personnel. The distribution of health personnel by residence areas is determined by the territorial repartition of health units.

EU analyses (European Commission, 2010) referring to avoidable deaths due to health system show that Romania ranks first in the EU in both male and female mortality. Moreover, whereas this trend has had a significant decreasing path in all the other EU countries, in Romania, it is either reduced (in women) or unchanged (in men). Poverty is associated with high infant mortality rate and with high morbidity, especially hospitalized morbidity.

In the past twenty years, WHO has issued policies to promote health equity. The WHO Report for the year 2000 mentions, “a framework for assessing health system performance and understanding the factors that contribute to it in the four key areas: providing services, developing the resources, mobilizing and channelling financing, and ensuring that the individuals and organizations that compose the system act as good stewards of the resources and trust given to their care” (WHO 2000). In other words, health systems must organize the necessary services, create the resources for providing such services and ensure financing for such services and stewardship, which allows all these desiderate to become reality. In the year 2005, the Commission on the Social Determinants of Health was founded, whose final report published in the year 2008 “Closing the gap in a generation” was a starting point in the study of inequalities in the health field and of the relation between politics and health. According to the Report, “the poor health of the poor, the social gradient in health within countries, and the marked health inequities between countries are caused by the unequal distribution of power, income, goods, and services, globally and nationally, the consequent unfairness in the immediate, visible circumstances of peoples lives – their access to health care, schools, and education, their conditions of

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<sup>4</sup> [http://old.presidency.ro/static/rapoarte/Raport\\_CPAEPDSPR.pdf](http://old.presidency.ro/static/rapoarte/Raport_CPAEPDSPR.pdf)

work and leisure, their homes, communities, towns, or cities – and their chances of leading a flourishing life”. This unequal distribution of health-damaging experiences is not in any sense a “natural” phenomenon (WHO 2008).

Intersectoral policies taking into account the social determinants of health are the most efficient way to improve the health of the poor population. The theory of social determinants of health represents the basis of all strategies and interventions with the purpose of reducing health gap between poor persons and the rest of the population. According to the European Commission (2013), Romania made progresses applying health reforms with the goal of increasing efficiency and accessibility, as well as improving quality, in line with the country-specific recommendations of the European Council in 2013. However, health reform remains one of the country-specific recommendations of the European Commission.

The levels of unsatisfied needs due to geographic barriers are some of the highest in the EU for the groups with the lowest incomes (0.8% compared to an average of 0.2% in the EU) (EC 2017<sup>5</sup>). Access-related differences are mostly related to the difference between rural and urban areas and they are explained by the unequal distribution of workers and institutions in the health field across the country, for all types of care. Whereas public hospitals are distributed evenly nationwide, 90% are situated in the urban areas, while private hospitals are almost exclusively in larger cities and richer areas. The Danube Delta and farther mountainous regions face serious challenges. Geographic barriers to access are exacerbated by travel costs, time involved and poor transport infrastructure, while lack of transport is commonly mentioned as determining unsatisfied needs. From the perspective of health personnel ensuring population healthcare, in the rural areas, it was weakly represented in the year 2017, because only 9.7% of the physicians, 13.1% of the dentists, 17.9% of all pharmacists, 10.7% of all middle-level health personnel and 11.6% of auxiliary health personnel actually carried out their activities (INS 2017). The measures of combating medical personnel deficit in the rural areas are undeveloped, but measures have been taken in the past years to stimulate the provision of several primary medical care services in the rural areas. Such measures included reviewing the set of services and the share of expenses for primary care and outpatient services (2014-2015). Early efforts involve increasing from 30% to 50% (2011) the

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<sup>5</sup> [https://ec.europa.eu/health/sites/health/files/state/docs/chp\\_romania\\_romanian.pdf](https://ec.europa.eu/health/sites/health/files/state/docs/chp_romania_romanian.pdf)

share represented by payments per service from the salary of primary medical care providers and reimbursement of telemedicine services in isolated areas (2013). In fields like cardiology, diabetes, some forms of cancer or psychiatry, the intake of innovative medication is 50% lower than the European average, which – according to the Romanian Association of International Drug Manufacturers (ARPIM) – confirms that Romania “fails” to provide new treatments at the level offered to patients within neighbouring countries. The IQVIA study (2018) (QuintilesIMS) shows that between 2013 and 2016, of the 156 innovative drugs approved by the European Medicines Agency, only 20 were introduced on the list of subsidized and free drugs in Romania. Italy introduced 86 drugs as subsidized, Slovenia 52, while Bulgaria 33, while the European average is 51 drugs. Moreover, from the moment a new drug is approved by competent bodies until it is introduced for subsidy, 43 months pass, twice as much than in Bulgaria or the Czech Republic.

Within health reform, certain intervention areas are highly relevant for poor or vulnerable groups. They are the following: (i) reproduction health, (ii) mother and child nutrition; (iii) infectious diseases (such as tuberculosis and sexually transmitted diseases); and (iv) chronic diseases long-term conditions and avoidable deaths, (v) screening programs in the main pathologies, (vi) support in developing medical staff skills, (vii) support for the provision of medical services to disadvantaged communities.

## **5. Conclusions**

The rural areas is also seriously deprived concerning infrastructure and institutions facilitating social participation. Social exclusion, in its European definition, involves – among other dimensions – a lack of connection to the communication and information systems, connecting the individuals and the individuals and the collective.

The pensioners who provide for the extended family and seniors who live alone are very numerous in the rural areas. Their health deteriorates, given that access to healthcare system has not improved, but only made more difficult. There are not enough physicians for the number of inhabitants; hospitalization is too expensive; drugs are too costly for the low incomes of the elderly. Most communes have no hospitals or they were deserted for financial reasons. Some seniors need permanent healthcare; many of the

elderly need medical care and social care, etc. Access to healthcare services is a fundamental right, but the pauperization of the population and all “dysfunctions of transition” generated self-exclusion from such services.

The improvement of health quality and equity in Romania requires an increase in general funding for this sector. Health expenses are not a mere cost, but also an investment with long-term impact on the socioeconomic development of the country.

Insufficient resources within the national health system with an unequal distribution in the territory do not allow the provision of proper services and treatment or medication in all areas of the country, mostly in the rural areas and small towns. Consequently, ensuring access for all social groups to proper medical care represents the key to the reduction of health inequalities.

Primary health and service network at community level represents the best framework for the reduction of access inequalities to medical services. Family physicians, generalist physicians along with community nurses and Roma health mediators, along with social workers and school mediators, represent key-actors for ensuring the access of vulnerable groups and poor communities to health services.

Currently, the primary medical care services network in Romania fails to provide health services to poor people. The human resources of the system are insufficient; infrastructure is not evenly distributed; the reference system to specialized services is still weak; healthcare continuity is not always ensured; budgets are not adequate; the quality of services provided by family physicians is not monitored or assessed. The use of primary medical care is one of the lowest in Europe. Thus, it should be improved by using measures to educate and promote health at population level, as well as through the interventions designed for the specific needs of poor or vulnerable groups.

Access to proper health services is still difficult for certain parts of the population, especially for poor or vulnerable households, for inhabitants of the rural environment and of small towns, as well as the Roma population. The inhabitants of the rural environment, especially those within isolated villages, face mainly territorial barriers, but they are also less likely to have health insurance. They are generally poorer, less educated and less informed than urban inhabitants are. Roma communities are in a similar situation, sometimes even worse given the discrimination; they are in poorer health than the rest of the population.

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