

HEALTH NEEDS ASSESSMENT OF THE POPULATION IN DEJ-GHERLA AREA: QUANTITATIVE RESEARCH

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Abstract

The health services plan in Romania is presently based only on epidemiological data reported by the health services providers to the Ministry of Health and the National House for Health Insurance, without systematic studies for assessing the health needs of different communities according to their particularities. This study begins from the hypothesis that there are significant differences between the communities of a county, which impact the needs for medical services. Therefore planning the health services efficiently and using the existent resources in the best way possible cannot be done without assessing each area and community. The study underlines the main differences identified in the population from Dej-Gherla area to the national or global indicators at Cluj county level, and also the need of local authorities to be involved in planning the health services.

Keywords: health priorities, health needs assessment, community health planning, health-care disparities, health policy.

1. Introduction

Presently, even under the decentralization that took place in the Romanian health system, the planning for health services only occurs at a central level, without studies on the communities for assessing their needs and strengths, which would be the basis for identifying priority areas of intervention, even though there are data supporting their significance (Watson, 2011).

In Romania, the first step towards involving local authorities in the hospital management was made with the hospitals' decentralization started with Government Emergency Ordinance (GEO) no. 48/2010, through which hospitals were placed under the responsibility of local authorities. Although the stated intention of this ordinance was that people could decide for themselves in terms of health, and that hospital services are to be delivered to the public through 'flexible structures capable of capturing closely and expeditiously the real needs of the community's population' (GEO no. 48/2010), the results of applying this normative act had only a partial effect, because the role of local authorities remained limited to the financial support for investments in hospitals, while the strategic prerogatives remained the same at the central level.

Thus, the organizational structure, the reorganization and restructuring of sanitary units remained a prerogative of the Ministry of Health, as well as unlocking and occupying positions of doctors, all of these processes unfolding very slowly.

The establishment of health care needs in the territory is done by the Insurance House, a process determined not only by a real necessity of services in the community, but also by the health suppliers existing in the said area. According to the type and number of suppliers, the Insurance House distributes funds between them, so that if there is a higher number of suppliers in a region (usually urban, well developed) it does not necessarily mean that the health needs of that community are higher than those of a less developed one, economically speaking, with less health suppliers.

During the hospitals' decentralization, the issue of the local or county authorities being involved in conducting studies in order to assess the health needs of a community has not been raised, because the assessment is being done centralized by structures under the Ministry of Health according to reports made by the medical services suppliers (County Public Health Departments and the National School of Public Health and Health Management Bucharest). At local and county levels there are no specialized structures on health issues, or qualified personnel.

The paper explores how needs assessment in the context of health care is performed in other countries, how differences between communities in terms of health care status can be mitigated through better tailored health care services. It then moves toward analyzing the health care needs from a specific region/county of Romania and based on this, it offers some recommendations concerning how the planning of health care services at community or county level can be designed.

2. Needs assessment in the context of modern health care systems

In other states of the European Union, such as Slovakia, a national assessment of the population needs model has been adopted, which is conducted by local or regional authorities through multidisciplinary teams of doctors and social workers subordinated to them (Brichtova,2011).

In order to measure the health state of the population, demographic, medical and anthropometric indicators are usually used as well as socio-economic, health services efficiency and hygiene indicators. The main issue however is represented by the fact that in order to take the best measures, the decision makers need analytical indices for each issue, given that synthetic indices do not highlight the variability of the problem enough (Borzan, 2007, p. 77).

In countries such as Great Britain and the United States of America, it is typical for the health needs of a community to be periodically evaluated (most often at five years intervals), an evaluation which provides the basis for establishing and developing strategies for health services in the region (regional allotment of resources for healthcare). Thus, in Great Britain, for a more equitable divisions of resources, in 1976 RAWP (Resource Allocation Working Party) was developed, the formula for calculating the resources for each region, according to the number of inhabitants, age structure of the population and the standardized mortality ratio, ratio given up in 1998, and replaced by indices of adjustment for population needs and regional average costs (Abel-Smith, 1995). It has been noticed that by applying the said formula, in 1985 compared to 1975 there has been a higher territorial equity in the relation between needs and resources (Powell, 1991). At local and regional level there are also some non-profit organizations which include representatives of the community involved in the health needs assessments.

In the United States of America, the responsibility for health policy planning and organization is divided between federal and state authorities, and local ones. National Health Interview Survey (NHIS) monitors the health of the nation since 1957, collecting data from American families on individual health status and access to health services in order to promote national health policies (Centers for Disease Control and Prevention). Also, the non-profit hospitals who wish to be exempted from federal taxes are obliged to conduct every three years studies to assess the needs of the community they serve and to develop program proposals according to the problems they have identified.

NICE (National Institute for Health and Clinical Excellence) was originally established in 1999 as a UK special health authority, in order to reduce variations in the availability and quality of care in the National Health System (NHS). In 2005, after the merger with the Health Development Agency, the development of public health guidelines to help prevent disease and promote a healthy lifestyle began. According to the NICE guidelines, the health needs assessment is a systematic method through which we review the major health issues facing a population, leading to the prioritization

zation and allocation of resources in order to improve its health and reduce inequities in access to health services (Cavanagh and Chadwick, 2005).

This method is used in public health for many reasons, namely: it provides information about the population on which it intends to implement health strategies; it offers the possibility of greater involvement of the community in decision-making; it causes better collaboration and teamwork between the various institutions involved in health services; it especially involves a better use of resources by directing them towards where they are most needed.

The importance of involving local authorities in planning health services is shown by several studies, especially in rural areas where partnerships between local health departments and community are encouraged in order to improve services (Bruckner and Barr, 2014).

The needs assessment represents an important part of each planning process, being a form of identifying the issues so that the limited resources can be directed towards implementing the solutions. The once assessed needs of a community help the local authorities to change their policies and elaborate action plans centered on these needs. Specifically, the evaluation process of the needs of a community follows the next steps: establishing the research problem (which is the evaluated population, what are the desired results, what are the needs to be achieved, what are the resources to be involved, what are the risks); identifying the problems (collecting data, establishing the demographic profile, identifying and assessing the health needs and their determining factors); establishing a priority (choosing a health problem and its determinants with the highest impact in terms of size and severity, establishing effective and acceptable actions); planning (clarifying the goals of the interventions, planning activities, monitoring and evaluating strategies and management risks); revising (what has been learned from the project, impact measurement, and finally electing the next priority).

When the needs assessment refers to the health state of a population, the process follows the same steps, but a multitude of aspects with an impact on health need to be taken into consideration, such as the environment (socio-economic factors, education, pollution, workplace), behaviors (alcohol consumption, smoking, diets, physical exercise), genetics (a person's heredity, the genetic vulnerable factors), the available healthcare system. Literature data indicates the fact that improvement efforts of the community's health have a higher success rate when there is a tight collaboration between the professionals in the health domain and other active organizations in the social domain (Rosenbaum, 2013).

An important issue in assessing the health needs is represented by the way in which its results are integrated within the healthcare planning process, because the information becomes useless if it does not fit into a clear plan to determine which are the needs that must be met, the time interval in which the results are expected, and the persons or institutions responsible. There are studies in the European Union showing that there are inequities in health between various states because of the so-

cio-economic differences, but also between different regions within these countries. An ample study described by Vervoordeldonk (2013) has been conducted in seven states (Bulgaria, Croatia, Estonia, Hungary, Lithuania, Slovakia and Spain) evaluating the different health needs, and elaborating a plan of action for each of the identified issues.

For example, in Bulgaria it has been noticed that there is a negative demographic and health state tendency in the Lovech region comparatively with data at national level, and the socio-economic factors are lower than those at national level. Following these findings, a public coalition called 'Public Health Initiative' was created in 2004, supporting the implementation of programs in the region. Noting that in the Lovech region there was the highest smoking frequency of all the municipalities, the action plan focused on smoking prevention in order to reduce the risk of cardiovascular and respiratory diseases and cancer, which were recorded with higher frequency in this region comparatively with the national average.

A study carried out in Croatia showed that in Međimurje County the life expectancy was lower than the one at national level, while there was also a higher level of unhealthy diets and alcohol consumption than in the rest of the country; therefore the action plan for the county focused on those issues.

In Estonia, in Rapla County, it has been found that there was a lower life expectancy, inequities in income and education level comparatively with the national average, factors that were taken into account when drafting the action plan aiming to reduce the health inequities.

In Hungary, in the sub-region Sellye of the Baranya County, which is the most economically disadvantaged, a much higher frequency of respiratory diseases and malnutrition of children were found, thus several programs financed through European funds were developed. The problems to be solved were: complex family assistance programs, programs reducing poverty that affects children, a sub-regional center of care for patients, and ensuring school meals for poor children during summer.

A study conducted in Spain showed that in the Canaries there was a much higher frequency of morbid obesity than in the rest of the country; therefore, Circle of Life programs for adults and PIPO program for children were developed. These programs focus on promoting a healthy diet and physical activity.

The study highlights that the assessment of health needs must be transposed into various health policies for communities with different profiles.

There are great differences between the different communities of a county, because of geographic conditions that influence the risk factors for disease, and also because of the socio-economic and financial factors, the behaviors related to health maintenance, diets, and predominant type of work, access to medical services and the level of education and training. All these factors have implications for the pathology which develops in a community, and on its needs for medical services. This study aims to identify such factors in a community, and to underline the differences that appear and compare them with the indices at county or national level.

To assess the health needs of the studied area (population from the Dej-Gherla area and its surroundings) the study collected data from the population (expressed and felt needs) through a medical-social investigation (quantitative method). This study represents the first part of a more ample research that makes comparisons between different areas of Cluj county, starting from the premise that a unitary planning of health services is not efficient (Stevens and Gillam,1998), and in order to get better results one needs to know the main health issues, the determining factors of the health state, access to services, and the demographic particularities of each territorial unit.

3. Material and method

The hypothesis from which this study begins is that without obtaining community data to indicate areas where the greatest need for the allocation of resources is, the already scarce health funds cannot be used optimally, as it does not take into account the specific features of each area.

The objectives of this research are the following: health needs assessment of the communities in Dej-Gherla area; assessment of factors influencing the use of health services in these populations; highlighting the differences in the health status, access to health services and their use, behaviors related to health care, knowledge and lifestyle, and health prerequisites in the studied area compared to data from county and/or national level; identifying priorities and emphasizing the importance of involving local authorities in planning for health services.

The study presented in this paper conducts an assessment of health needs in the population of the 2nd territorial planning unit (Dej-Gherla and neighboring areas) by administering a questionnaire to a sample of this population.

The 2nd territorial planning unit of ClujCounty (Dej-Gherla) is situated in the north-eastern side of the county, with a total of 105,987 county inhabitants (15.55%), out of which 56.65% are in the urban area and 43.35% are in the rural area. According to the Cluj County Development Strategy for 2014-2020, the county seat Cluj-Napoca is the second urban center of Romania, with a population of 307,136 inhabitants (2011) and the strongest effect of polarization, concentrating 66.8% of the county population, therefore exerting negative effects on the development of other urban centers in the county. This is reflected in the development of health services in the city of Cluj-Napoca where there are currently a total of ten public hospitals, yet only five in the remaining cities and towns (one in each city), and all are subordinated to local authorities. Regarding private hospitals, in 2012, there were twelve private hospitals in Cluj-Napoca, and only one outside the city (County Department of Public Health Cluj, 2012).

We have chosen for the initial study the population from the Dej-Gherla area because it is less developed than the municipality of Cluj-Napoca, a high percentage of the young population has left to work abroad, so that the rural environment predominates, with numerous elders with a low economic and educational level. Because of

this, we expect that the identified health issues would differ from those in the rest of the county. From an administrative viewpoint, this area comprises two municipalities and their neighboring communes. In terms of medical services, this area is served by two hospitals, the one in Dej solving the more complex health problems of the area, with a large number of specialties and a larger number of beds comparatively with the hospital in Gherla.

The questionnaire was constructed using the model applied in the United States National Health Interview Survey (NHIS), containing 89 questions divided into four categories: individual health (physical and mental health, body weight and height, existence of known and diagnosed diseases, drug therapy for chronic diseases, non-specific psychological distress) – 13 questions; access to health services and their use (available medical services and the most commonly used ones, the degree of satisfaction with the services, the main reason of delay in obtaining health care, too expensive services) – 18 questions; behaviors related to health care, knowledge and lifestyle (undergoing examinations for early detection of serious conditions, such as malignant tumors, diabetes and the risk of cardiovascular disease, use of medications, dietary behaviors, exercise, use of toxic substances, exposure to potentially health endangering situations) – 47 questions; prerequisites of health and demographic data (age, gender, ethnicity, income, insurance status, existence of additional insurance, occupation and education) – 11 questions. The NHIS was chosen as a model because it covers all aspects described in literature as having an impact on the use of health services, thus representing a comprehensive method for assessing health needs. NHIS is applied periodically in the USA at a national scale, being used for health planning strategies. A part of this questionnaire, namely the Health Related Quality of Life (HRQOL), is validated and used in the European countries especially for assessing the impact of some treatments on the life quality of patients suffering from various diseases.

The questionnaire was applied to a total of 400 subjects, and after eliminating incomplete questionnaires, a sample of 387 people had been established. This sample is larger than the one considered to be statistically representative which is 383 subjects for a population of 105,987 inhabitants, calculated with the formula $n = t^2 * p * [(1-p) / e^2]$ (Bauer, 2014, p. 62). The values of the sample resulted through applying this formula was verified using the online calculator Creative Research Systems survey software (Sample Size Calculator).

Criteria for inclusion in the research were: subjects were residents of Cluj County in the 2nd territorial planning unit Dej-Gherla and adjacent localities, age over 20, randomly selected from the general population, who agreed to participate in the study. Subjects diagnosed with mental retardation, dementia or psychosis flare were excluded from the research due to lack of judgment and inability to fully understand the significance of the questions in the questionnaire. The subjects were contacted directly at work, in the offices of family physicians, in hospitals (caregivers, patients and staff), the mayors from home, and personal residence. Questionnaires were handed in writing to those willing to fill them out, along with a short briefing, and an explanation of

the purpose of research. The main difficulty was caused by the large size of the sample, a great number of people refusing to participate due to lack of time.

In terms of age, the studied sample does not differ significantly from the study population with an average age of $M=48.60$ versus $M=47.98$ the average age of the population from which the sample was taken (t test = 0.7958 much lower than the 1.980 obtained at the significance threshold $p = 0.05$). Questionnaires were administered to 182 men and 205 women, at a proportion of 1:1.12, which does not significantly differ from the proportion of the general population of the same age, which is 1:1.11.

In terms of rural-urban repartition, 168 subjects are from the rural area and 219 from the urban area, resulting in a ratio R:U of 1:1,305, similar to 1:1,306 which is the R:U ratio in the population of the 2nd territorial planning unit Dej-Gherla and neighboring areas.

This article presents some of the studied issues, namely those which emphasize the peculiarities of the studied area in relation to the population of the county, showing the importance of involving local authorities in planning health services in order to reduce existing inequalities.

4. Results and discussions

4.1. Individual health state

After applying questionnaires to the study sample, it was found that the majority of the respondents (57.88%) consider their general health state acceptable or poor, especially because of the somatic health, which is considered acceptable or bad by a percentage of 52.71% of the respondents, compared to poor mental health, which is reported by only 41.63% of the respondents, possibly because of biases against mental illness that exists in the community.

By assessing the body mass index of respondents, it was found that 63.82% of them have a weight above normal, which is an important health issue. The value of this ratio is also much higher than the national statistics, which indicates a prevalence of obesity and overweight of 45.8% of males and 38.1% of women (Regional Public Health Center Sibiu, 2011). The results also differ significantly from the obesity values reported in the ECHI indicators (European Core Health Indicators) by Eurostat, where the proportion of adult individuals (over 18 years old) reported in 2008 as having a BMI over 30 kg/m² is of 7.9%, the lowest of all the 18 countries that answered to the European Health Interview. Either obesity represents an increasing issue and is under evaluated nationally, or the lifestyle in the studied area determines a higher obesity rate than in other areas of the country, hypothesis which need to be evaluated through a similar method in other communities of the county through future studies.

Concerning chronic diseases known by respondents as being previously diagnosed, the following can be observed:

- From the total of 387 respondents, only one (0.26%) declared he doesn't know to be diagnosed with any of the diseases listed;

- 34 respondents declared they have never been diagnosed with a disease (8.78%);
- The rest of 352 respondents were diagnosed with at least one of the listed diseases (90.96%).

Of the 387 respondents, 47.54% admitted they currently take medication for chronic diseases, between 1 and 11 different drugs, with an average of 3.56 medications (median=3).

The most frequently diagnosed were discopathy or spondylosis, accounting for 48.58% of total responses, arthritis and rheumatism (39.38%), visual impairment (35.79%) and migraine or other headaches (34.94%), while hypertension and cardiovascular disease have been reported in positions 5 and 6. The results of the questionnaire also show a low frequency of high blood pressure (reported by 32.95% respondents) compared to the SEPHAR study (2005) which shows the prevalence of blood hypertension in Romania at 44.92% and the fact that 40% of Romania's population suffers from hypertension. This may be due to underdiagnosed cases of high blood pressure and cardiovascular diseases in the studied area, possibly because of late visits to the doctor.

The study results also differ from the leading causes of morbidity in Romania which, judging by the incidence of diseases are respiratory diseases, digestive system, infectious and parasitic diseases, injuries, poisoning and cardiovascular disease (Zanoschi, 2003).

The Kessler Psychological Distress Scale (K6) interpretation (Kessler, 2003) led to the following results:

- 219 of the 387 respondents presented values between 6 and 11, which are considered to represent healthy individuals that can benefit from early interventions and information that can improve the acknowledgement of depression and anxiety as a prevention strategy for potential mental health issues;
- 129 respondents presented scores between 12 and 19, which indicate the probability of the existence of a mild or moderate mental disorder for which the adequate interventions are those of encouraging access to information and self-help treatment programs;
- 39 respondents presented scores between 20 and 30 which indicate the probability of a severe mental disorder, for which accepting psychiatric help is encouraged and recommended.

These data are also confirmed by the percentage of respondents who said they had been diagnosed with depression or other psychiatric conditions, which is 11.08%.

4.2. Access to health services and their use

Evaluating the institution that most of the respondents approach when they are sick or need advice concerning their health state, most respondents 61.76% go to the family doctor, a large number still remaining who go straight to the hospital (26.10%) and to the emergency rooms department of the hospital (5.43%). Other places the

respondents directly go to are the specialty ambulatory (4.13%) and private practices (2.58%).

Regarding the health services provider to which the respondents go for routine investigations or periodic examinations, the situation seems quite paradoxical, the proportion of those who go to the family doctor decreasing to 47.80%, while the percentage of those going to the hospital increases to 33.85%.

We have also analyzed which are the other providers used for preventive services, noting that the percentage of those who go for routine checkups to the emergency room is 2.33, those who go to the specialty ambulatory represent 5.94%, and 4.39% approach the private practices.

There is also a share of 5.68% of the respondents that declare they do not go to any routine investigation provider (Figure 1).

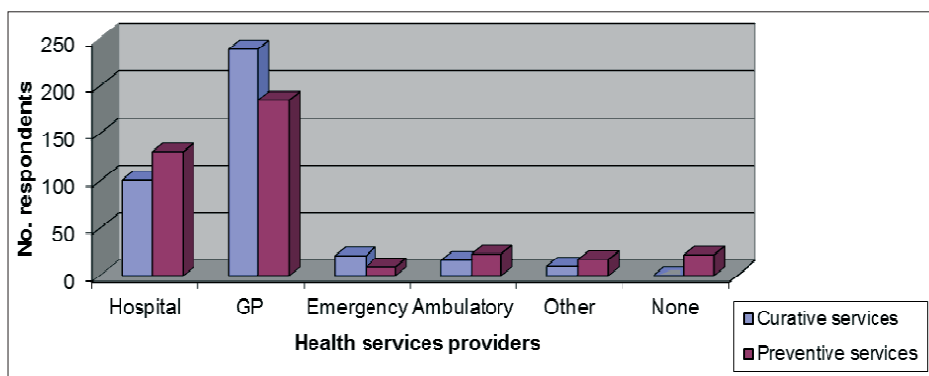


Figure 1: Use of health services providers for curative or preventive services

It can be observed that the preventive medicine and prevention health programs are not implemented correspondingly, because primary and ambulatory care should have a much higher addressability for this type of services compared to the hospital.

The research also tried to determine if there is any institution to which respondents go in case of emotional or psychological issues, an aspect to which most of the respondents (77.26%) declared they do not have such a place, and 13.43% declared they do not know where they could go. Only 8.78% declared there is a service provider they go to for mental problems, and 0.52% declared there are various providers (psychiatrist, psychologist or psychotherapist) they go to. Out of the latter, 17.65% of the respondents said that the service provider they directly go to in case of mental issues is the family doctor, 8.82% said they use ambulatory psychiatric services, 5.88% go to a psychotherapist, and for the majority of 67.65% of respondents the hospital is their provider.

An issue for the community health is the fact that a very small number of respondents, only 9.30%, declared they go to a health services provider in case of mental or emotional issues, given that mere prevalence of a major depression episode throughout life is in Romania at 3.3% (Florescu, 2010), and life prevalence of mental illnesses

is at approximately 33%. This means that throughout life one out of three people will show the symptomatology of a mental illness according to international diagnosis criteria (Mental Health Strategy of the Ministry of Health of Romania).

This shows a large number of underdiagnosed mental illnesses in the studied area, most probably because of prejudices towards mental diseases, which prevents or delays the visit to the doctor in case of said issues. This can be a national problem, because according to EUROSTAT data, Romania has the lowest percentage of persons who declare being diagnosed with depression in the past 12 months (0.8%, similar with Bulgaria) while the maximum percentage 5.6% is reported in Belgium.

4.3. Behaviors related to health care, knowledge and lifestyle

The study evaluated the preventive health care behaviors, finding that in the studied area the vast majority of both men and women did not take a test for early detection of breast cancer (73.65%) and prostate cancer (69.23%), or do not know about the existence of these tests. These data are consistent with EUROSTAT data– Romania ranked last in terms of the percentage of women (50-69 years old) who performed a mammography in the past two years (8%). Romania is also second to last in terms of pap-smear testing, at a rate of 14.6% versus the maximum of 81.5% reported in Austria. The data from the community show a good frequency of the cervical cancer screening performance of 49% in the last three years, but this is in the context of the currently running national screening program, and it is still much lower than in the EU.

Most respondents (90.18%) had no influenza vaccination, even if it is offered for free for people at risk by a program of the Ministry of Health.

To evaluate unhealthy or risky behaviors that can cause disease, the following indicators were chosen: smoking and alcohol consumption.

Concerning smoking, out of the total of 387 respondents, a percentage of 41.60% declare that they allow smoking in their homes, 46.77% declare they have smoked, and 26.87% are presently smoking, with a mean of 13.13 cigarettes smoked per day (median=10).

Evaluating risk factors such as smoking shows the percentage of smokers to be 26.87%, higher than the EUROSTAT data for Romania, according to which the percentage of daily smokers above 15 years old is 20.5%. These results need to be confirmed through further research extended to other communities of the county, in order to ascertain whether this behavior is more frequent in this community, or whether its high frequency is caused by a general rising smoking trend in Romania.

Regarding alcohol consumption, 60.72% of the respondents report drinking alcohol, of which 54.52% admit occasional consumption, 3.36% admit a consumption of 3 to 4 times a week, and only 2.84% admit to almost daily alcohol consumption.

What needs to be mentioned is that even though only a small percentage of respondents (6.20%) declares a steady use of alcohol, there are other numbers which show a somewhat different situation: 14.98% of the respondents declared they felt the need to give up alcohol, 12.66% declared they felt irritated by other people's critics

towards their high level of alcohol consumption, and 10.07% felt guilty because of their excessive use.

Regarding alcohol consumption, a small percentage of respondents declared a steady use of alcohol, contrary to EUROSTAT data which place Romania on the fourth place in the European Union for liters of pure alcohol per inhabitant over 15 years old (16.15 l/year). This result may be due to hiding this behavior considered shameful by some respondents.

4.4. Health prerequisites

In this section of the questionnaire, besides demographic data, indicators with an impact on the health state were included, meaning the total income of the family and their education level.

Regarding the family's total income of all those who financially contribute, the majority of respondents declared income lower than 1,500 RON/month, 15.50% having a total income under 700 RON/month, 36.69% of the respondents having a monthly income between 701 and 1,500 RON/month, 26.10% declared a total income of 1,501-3,000 RON/month, and just 10.59% of the respondents declared a total family income of over 3,001 RON/month (Figure 2).

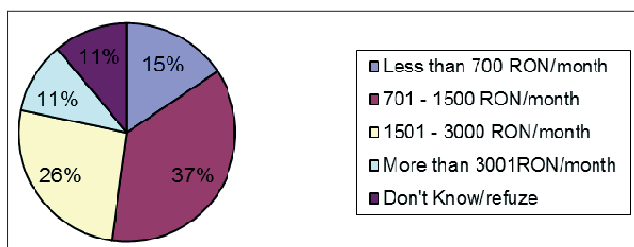


Figure 2: Respondents share according to the family's monthly income

In order to compare the data at county level, corrections have been applied according to the number of members. The mean net income/inhabitant in Cluj County is 1,542 RON (National Commission for Prognosis, 2012), and the national one in 2012 was 1,572 RON. Taking as a limit of poorness 60% of the equivalent mean income, which according to EUROSTAT data was in 2011 2,116 EUR/year, the poorness limit in Romania can be established at 785 RON/month. The study highlights that out of the total of 387 respondents, 237 (61.24%) show a net income/person lower than 785 RON/month. In Romania, according to EUROSTAT, 40.3% of the population has an income under the poorness limit, our country being on the last place in the European Union at this indicator, similar to Bulgaria. Results show that in the studied area people who present a risk of poorness are in a much higher percentage than the national average.

We also pursued the existence of a correlation between declared income and the self-perceived health state. Thus, we discovered that, at a significance level of 0.05 there is a significant correlation between the economic status and the general health

state ($r=0.2209$), and equally so with the physical health state ($r=0.2672$) and the mental state ($r=0.2600$). People with lower incomes perceive their health state as more precarious, and this shows that it is necessary to pay more attention to the health programs for poor people.

Analyzing the existence of health insurance, we found that 95.35% of the respondents said they had health insurance and only 4.65% were uninsured. Only 3.10% of respondents said they have additional insurance that includes dental services.

The educational level is considered an indicator for elementary sanitary knowledge, as well as for disease preventing behaviors. Out of the total of 387 respondents, only 18.09% have graduate and postgraduate studies, 13.44% graduated a post-secondary school, 23.77% are high school graduates, while 27.13% only finished 10 grades, eventually a vocational school, and 17.57% only graduated elementary school (Figure 3).

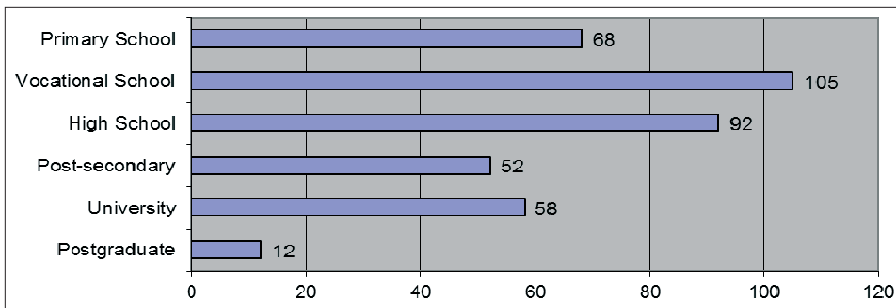


Figure 3: Respondents share according to their educational level

It can be observed that in the studied area, the people with a low educational level (primary, secondary or without a graduated school) are predominant in a percentage of 44.70%, compared to the county value of 33.66% (National Institute of Statistics, 2011) followed by those with a medium education level (post-secondary, high school, vocational or foreman school) in a percentage of 37.21% to the county proportion of 45.48%, and a percentage of 18.09% with graduate studies, lower than that of the county (20.86%). These data represent an issue for the studied area, because it is a proven fact in many studies that the education level has implications on the use of medical services and on preventive behaviors (Dubikaytis, 2010).

Data from this research are consistent with other studies (Anton and Onofrei, 2012) which concluded that the determinants of health, such as smoking and alcohol consumption, fruit consumption, education, and corruption levels have implications for the performance of health systems and health expenses.

5. Implications of the features found on local health policies:

As highlighted in the manual written in the 1st National Program of the Ministry of Public Health in Romania, the Community Public Health Program for the year 2006, subprogram 1.5, Promoting health and health education, 2nd objective, any process of

assessing the health needs from a community must be completed with the development of programs that modify and improve the health policies from the said community, programs that remedy the observed issues.

The study reported several significant differences compared to the national average values highlighted by other studies, as already mentioned in the previous sections. In order to make sure that these differences would not be due to problems of research methodology, we followed on the one hand the statistically representative sample size as it is recommended for social inquiry, and we verified that it does not differ significantly from the average county population in terms of age, sex and background. In the United States of America such studies are conducted via telephone surveys, but due to high costs we chose to administer a face-to-face questionnaire, by volunteers trained beforehand. As in the case of the questionnaire used in the United States, we used terms easily understandable even by people with limited health education, in addition to administering the questionnaire face-to-face which allows for an explanation of unclear terms.

In the studied area we have observed some notable differences compared to the average national or county values, as follows: in terms of the individual health status, we found a higher rate of obesity, a lower frequency of people diagnosed with hypertension and underdiagnosed mental problems compared to national averages. Also, in terms of access to health services, we found very little use of preventive programs compared to their use at national or European level, and poor functioning of primary and ambulatory care, all these resulting in overuse of the hospital services. The assessment of health care-related behaviors showed a much higher rate of smoking than at national level. In terms of health preconditions the study highlights a socio-economic and educational level lower than the county average. All these factors should be considered to be the subject of local improvement programs.

Thus, although there are national media campaigns highlighting the need for healthy diets and warnings against the risks of smoking, we believe that local authorities in the area (especially Dej and Gherla municipalities) should devise, at school level, educative programs for youths, promoting a healthy diet, physical exercise and avoiding toxic substances, which would diminish these risk factors in the future.

Also, in collaboration with the two subordinate hospitals, but also family doctors in the area, local authorities may initiate screening campaigns for hypertension, which can be run with very little costs.

The socio-economic conditions noted, as well as a lower educational level shows that it is very important that health services be closer to potential beneficiaries, for it is difficult for the poor to commute for advanced services at hospitals in the Cluj-Napoca municipality. Therefore, we believe that the support of local authorities is necessary in order to develop more varied and advanced health services in the hospitals in the area.

In short, we believe that from this assessment of the health needs of the studied area, the needs to develop the following types of care are outlined:

- Preventive Services: Youth health education campaigns, screening programs for cardiovascular diseases, health promotion programs in rural areas through family physicians; and
- Curative services: An increase in the number and complexity of the services offered by the local hospitals, health programs for poor people.

Such comprehensive evaluation studies of community health needs have not been conducted so far, although their need is shown by the Presidential Commission Report for the analysis and development of public health policies in Romania (2008). For this reason we believe that creating such studies at local and county levels in collaboration with the local hospitals would be beneficial for future population health state. The validity of the indicators used in this study will be demonstrated by comparing them with the results from other areas of the county of Cluj. However, just as in other countries using similar methods of work, the obtained data should be read in conjunction with those obtained from the treated morbidity statistics obtained from healthcare providers, as well as with data obtained from qualitative studies involving both health professionals and representatives of the local communities.

6. Conclusions

The study points out that there are differences in the studied area vis-à-vis indicators at county or national level both in terms of health and access to health services. Also, risk factors for illnesses, such as obesity and smoking, are found more frequently and should therefore influence the attention paid to promoting a healthy lifestyle and basic sanitary conduct.

Due to highlighting certain adverse health prerequisites compared to those in the county, such as low educational level and poor economic status, which increase the risk of disease in the studied area, it becomes evident that the planning of health services at this level must take into account these features, and that the current health service planning without the involvement of communities and without studying their needs can generate inequities in receiving medical services.

For these reasons we believe that the study highlights the importance of local authorities in assessing the health needs of the population, in order to improve its health. Running an extensive investigation at the community level could be achieved easily with existing financial and human resources in the municipalities, and could bring important information for better planning health services. The study also shows that there are interventions for solving problems in the population, such as information and education campaigns that could be supported by local authorities, taking into consideration that currently the Insurance House does not fund this type of preventive interventions at local level.

It is our belief that the expansion of such research and the creation of a real partnership between health agents and local authorities would bring significant benefits to the health of the population.

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