

# Population's unmet needs in relation to primary care in Romania- a pilot survey in County Brasov.

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## Research article

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# Abstract

Background Patients' expectations and needs for healthcare services are changing. These changes are correlated with changes in disease profiles, a higher prevalence of chronic diseases, the introduction of new and innovative treatments and health technologies, and the emergence of new social and economic contexts. National health reports on Romania show that decisions in healthcare planning are not correlated with the health needs of the population. At the same time, this report shows a high degree of unmet healthcare needs of the Romanian population (related to cost, distance and waiting times), especially for low-income populations. The objective of the study was to identify the unmet needs of the population in relation to primary care medical services in the context of actual health regulations through a pilot study in a representative county in Romania. Methods The study is survey-based, and part of a health needs assessment programme commissioned by the District Health Authority to the university. A questionnaire with 21 items was designed to gather information about the structures, processes and outcomes of primary care from the perspective of the population. A total of 877 questionnaires were returned and validated. The data were analysed with SPSS version 25. Results Access to primary care was considered to be good by most of the population. Most of the settlements have a family doctor, and 80.5% can schedule an appointment on the same or the following day. Most basic medical services are provided, except for out-of-hours primary care services and cervical cancer screening. The family doctors are considered to be a reliable health resource. Conclusions Despite limitations in the practice of family medicine in Romania and therefore a narrow spectrum of services offered by primary care in general, the level of contentment of the population with this healthcare resource is still high. Barriers to access are related to the lack of some essential services, especially preventive and out-of-hours services. Unmet needs are presumably not recognised by patients due to a lack of medical culture. Further research is needed to clarify this conclusion. Key words: unmet health needs, primary care, Romania

## Background

Patients' expectations and needs of healthcare services are changing. These changes are correlated with changes in disease profiles, a higher prevalence of chronic diseases, the introduction of new and innovative treatments and health technologies, and the emergence of new social and economic contexts. Healthcare systems need to adapt to these trends and aim to cover the health needs of the population. Romania's position in this equation, especially in relation to primary care, is a challenging topic to address.

In 2017, the European Observatory on Health System and Policies published a national report on Romania, showing that while Romanians claim to have good health, mortality figures are still very high, being among the first in Europe for most preventable diseases<sup>1</sup>. The underfinancing of the healthcare system is one of the main causes identified by the authors of the report, as well as the inefficient use of resources. Healthcare planning in Romania is merely top-down in nature and is not correlated with the health needs of the population. Romania is reporting a high degree of unmet healthcare needs in the population related to cost, distance and waiting times, especially for the low-income group<sup>2</sup>.

Primary care is an important segment of the healthcare system. In terms of health policies, primary care is entirely assimilated into family medicine in Romania. Family medicine has suffered the most dramatic changes in organisation after the health reform in 1992. The context of practice in family medicine in Romania has certain particularities. It contains elements favouring both access and equity but also important barriers to healthcare. One of the enablers to access is the fact that in Romania, nearly all patients are registered with a family doctor (FD), the latter having a gatekeeping role. At this level, free consultations are offered for all insured people (more than 85%)<sup>2</sup>. The uninsured have also access to a minimal package of services. The free choice of the FD is also guaranteed by the National Health Insurance Contract.

Certain barriers to the practice of FDs are present. Due to cost control policies, prescription protocols have been used to limit the initiation of certain medications. Medication for type 2 diabetes or asthma inhalers cannot be prescribed by FDs; rather, a referral to a specialist is needed. Other limitations are present in the reimbursement of procedures, discouraging FDs from performing them. In this context, we are witnessing a narrowing of the scope of care of family medicine, such that it is transforming into a point of referral and rather than one of intervention in the system.

The question arises if there is still a recognised role of primary care in the community and the expectations our patients still have in relation to it. Therefore, the objectives of the study are to analyse unmet health care needs of the population in relation to primary care. The findings might allow us to explore the degree to which system barriers have altered the use of medical services in primary care, trust in FDs and ultimately the FDs' roles themselves in the community.

## Methods

The research consisted of a survey conducted in the context of a health needs assessment project commissioned by the County Council of Brasov to Transylvania University. The survey was administered to a representative sample (1200 participants) of the adult population of County Brasov Romania (634,236 inhabitants) between June and September 2018.

A theoretical sampling with the mapping of all representative communities was considered. The population was accessed randomly in FDs' offices and County Councils. The statistical error of the sample is 3.32% for  $p=95\%$ .

In the project, we designed a 54-item questionnaire meant to analyse the felt and expressed needs of the population and the need to access different levels of healthcare in the past 12 months. Twenty-one of these questions were dedicated to exploring possible unmet health needs at the level of primary care and are analysed in this paper. The questionnaire was self-administered and had preformulated answers that prefigured the recognised normative aspect of care. A total of 877 questionnaires were returned and validated.

The Cronbach's alpha coefficient was 0.828, a value that has allowed us to pursue research.

Questions were grouped to explore the three dimensions of care: structure, process and outcomes of care<sup>3</sup>.

Structural attributes have targeted the following: waiting time until appointment, opening hours, access by telephone, availability of FDs in the community, presence of a second family doctor in the community, and availability of out-of-ours services led by FDs.

The process attributes include continuity of care, information on medication, information on prevention, time spent at consultations, range of diseases that can be addressed, availability of preventive services (Pap smear), medical procedures available (blood draw/electrocardiogram), FDs' knowledge of patients' history, and facilitation of access to secondary or tertiary care. Outcomes of care attributes include health problems not resolved after FD encounters and being more informed about health problems after visiting FDs.

We have also explored patterns related to family medicine, such as the number of visits to the FD per year and the constancy in being registered with FDs.

The data were analysed with SPSS version 25 (under license at Transylvania University).

## Results

The demographic characteristics of the sample are summarised in Table 1. It should be noted that the population over 65 is greater (18.2%) than the county average (15.8%), as published by the County Statistical Department. The gender distribution favours women (67.2% female and 32.8% male). The level of education is as follows: 11.6% have a basic education level (8 classes and under), 61.1% have graduated from a high school or a professional school, and 27.2% have a university background. This distribution covers the broad spectrum of education in the community.

In terms of visits to the FD, 15.6% of patients visited their FD once in the past 12 months, 19.8% visited the FD 12 times, and only 3.9% visited the FD more than 12 times.

Table 1. Demographic data of the sample

Data	Category			
Age distribution (%)	18-30y	31-50y	51-65y	Over 65y
	19,7	39	22.4	18.9
Gender distribution (%)	Female	Male		
	67.2	32.8		
Level of education (%)	Primary school	Professional	High school	University and higher
	11.6	13.7	47.4	27.2
Residence (%)	Urban	Rural		
	48	52		
Years with same FD	Less than 10 years	More than 10 years		
	46.4%	53.6%		
Number of visits to FD in the past 12 months (%)	One	Less than 12	More than 12	Average
	15.6	19.8	3.9	11.25

The study is a typical approach to a health needs assessment (HNA). The HNA is recognised as a method to identify gaps in care. Health needs are various: felt needs, expressed needs, normative needs<sup>4</sup>. All

these needs can be met or unmet at any given moment with respect to three dimensions: need, supply and demand. The patient is central to this equation and is not always consulted.

Our study offers the responses of a significant sample of the county population, thus showing the positive and the negative parts of primary care as perceived by the population.

### **Access to primary care**

In Romania, in the framework of the National Health Insurance System (NHIS), nearly all patients are registered with an FD. The main limitation of access to an FD is the lack of family doctors in certain regions. In Brasov County, only 2.6% of patients declared that they do not have a FD in the area where they live. In other regions of Romania, this problem is larger. In total, after an estimation made by professional organisations in 2014, there is a lack of over 500 GPs in Romania (unofficial data). A deficit of professional resources in family medicine is a worldwide problem, and policies to stimulate the retention of this segment of the workforce should be developed, especially by local communities<sup>5</sup>.

Asked if reaching their FD was a problem (in the past 6 months), 88.6% of the population answered not having had any problems, and only 11.6% answered that they encountered problems. In comparison with other types of specialists, accessing FDs seems not to be a problem. Responders signalled difficulties in reaching an eye specialist (37.3% could not reach one in the past 6 months) or a cardiologist (43.1% could not reach one in the past 6 months).

Furthermore, the results of our study showed that only 26.6% of people could receive a same-day appointment with their GP. This percentage is lower than that reported by the regional WHO office from 2009 that showed that 92.8% of people could schedule a same-day appointment with their FD<sup>6</sup>.

Nevertheless, our study shows that next-day appointments are possible in 53.9% of cases.

When asked if there was an alternative doctor to see if their FD was missing, 27.6% of participants affirmed that there was no other doctor to replace their FD in the community.

In only 58.6% of cases, there is access to an out-of-hours (OOH) centre in the neighbourhood.

The hours of operation of FD offices allow most people (91.2%) to access the practice. Access to FDs' offices by telephone is available in 90.5% of practices.

However, in a study published in 2015, data showed only occasional access by telephone and an appointment system in the FD office; this situation has changed in recent years since the introduction of a compulsory appointment system by the National Health Insurance House (NHIH)<sup>7</sup>.

Table 2. Health needs in relation to access to the FD's office

Questions	Yes (%)	No (%)
In the past 6 months, did you feel the need to be seen by an FD and you couldn't reach him or her?	11.4	88.6
In the place where you live, do the opening hours of the FD allow you to access services whenever you need them?	91.1	8.8
In the place where you live, is there an out-of-hours centre?	58.7	41.1
In the place where you live, is the FD's office is easy to access by telephone?	90.5	9.5
In the place where you live, if your FD is not present, is there any other FD you can visit?	72.4	27.6
Do you have a GP where you live?	97.4	2.6

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#### How long do you have to wait for an appointment for the FD?

26.6%: same day/53.9%: 1 day/12.1%: 2 days/7.4%: more than 2 days

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### Longitudinal continuity of care

Our study showed that patients prefer long-term relationships with their FDs, even though they have the option of choosing and consequently changing their doctor. Most patients are registered with their FD for more than 10 years (53.6%).

### Seeking medical care at the FD

The average number of visits to the FD in the past 12 months in our study was 11.25. Most patients visited their FD 12 times (19.8%). People older than 65 years of age access their FDs most frequently (Figure 1). A European database<sup>8</sup> (Eurostat, Healthcare activities statistics- consultations) shows an average of 5.7 contacts with the GP, and a national report from 2009 shows 7.7 visits per years. The increase in the number of visits is due to the contract framework of the National Health Insurance House (NHIH), which specifies the gatekeeping role of the FD.

Limitations of access to the FD are caused by system organisation. In the contract a FD has a limited number of consultations per day (20 or 24 according to the number of patients registered in the patient list) and only 5- or 6 opening hours a day. Despite these limitations, that could cause waiting lists, there is no significant waiting time to see a FD, only 7.4% of the patients having to wait more than 2 days to reach their FD. It can be explained by the fact that FDs cover extra patients every day, thus reducing the length of the consultations that are normally set to 15 minutes per patient. This aspect can be a cause of lowering the quality of care and lead to burnout for the physician.

Although a same day visit is possible only in 26.6% of cases people do not consider this feature to be a barrier to access. In our opinion, it is probably linked with the lack of another perspective. If alternative model practices, with more time availability, could be an option, perhaps the patient's options would have been more differentiated.

A possible option to cover the reduced consultation time at FD office is access to continuity of care through out-of-hours (OOH) services and or other health resources (ambulatory subspecialty care, private medical services). It is necessary considering that in 27.6% of cases, the FD is the only health resource in the community.

Access to out-of-hours services is a problem due to the lack of coverage in the whole territory of the county. It is a result of the fact that OOH is a service organised by FDs at their sole discretion, without rigorous planning of the service by the District Health Authorities.

### **Person-centred care and trust (Table 3)**

In terms of the process of care, respondents have shown that they consider FDs a reliable health resource. FDs who knows their history and medications can inform and educate them regarding their disease. This result shows that even though there is a reduced variety of services that FDs can provide (in the situations of the restrictive contractual framework), patients are still counting on their FDs. The potential of this relationship is important, and FDs are to be encouraged to practice at their full potential, broadening the spectrum of services that they deliver to patients, especially those that are important to public health.

Table 3. Health needs in relation to the processes of care in the FD's office

Questions	Yes (%)	No (%)
Does your FD know your disease history?	93.8	6.2
Does your FD know your medication history?	93.5	6.5
Did you receive clear information from your FD regarding your illness?	88.8	11.2
Did you receive clear information regarding ways to prevent illnesses?	87.7	11.2
Is your FD spending enough time with you?	86.8	13.2
At the FD, you can address any medical problems?	87.6	12.4
In the FD's office, can you get referrals for appointments for secondary or tertiary care?	82.1	17.9

#### **Health improvement and education (Table 4)**

The results of our study show that most of the responders are satisfied with the results of care.

Health education and medical advice is recognised to be valuable in 88.8% of cases concerning diseases and 87.7% of cases for preventative measures.

A total of 52.3% of patients suffered from a chronic disease, and 91.9% of them affirmed that they understood the medical advice of their FD on how to take medication.

Table 4. Health needs in relation to outcomes of care in the FD's office

Questions	Yes (%)	No (%)
After the consultation with your FD, did you feel that your health had improved?	88.2	11.8
After the consultation with your FD, did you feel more informed on preventative measures?	87.4	12.6
After the consultation with your FD, did you understand how to take your medication?	91.9	8.1

### Availability of procedures (Table 5)

We looked at some of the procedures relevant to public health, such as pregnancy monitoring and well-child and cervical cancer screening. Access to these services is appreciated by patients, yet data from the NHIH show a reduced number of reported services, such as pregnancy monitoring and well-child and cervical cancer screening. Underreporting is one of the causes, as well as a lack of education among the population accessing these services.

Point-of-care testing, such as lab tests and electrocardiograms (EKGs), is not recognised as an offered service in the family doctor's office.

Table 5. Health needs in relation to procedures in the FD's office

Questions	Yes (%)	No (%)
In the place where you live, do you have access to IV injections or infusions?	92.4	7.6
In the place where you live, do you have access to the flu vaccine?	94.4	5.6
In the place where you live, do you have access to pregnancy monitoring?	85.6	14.4
Is your FD doing well-child monitoring?	90.7	9.3
In the place where you live, do you have access to Pap smear services in the FD's office?	46.2	53.8
In the place where you live, do you have access to blood draw services in the FD's office?	63.1	36.9
In the place where you live, do you have access to an electrocardiogram?	56	44

## Conclusion

The analysis of unmet needs in the primary care system in County Brasov shows a high degree of satisfaction among the patients related to access, processes and outcomes of primary care. The results are surprising if we consider all the normative barriers in the provision of medical services set by the government to primary care practitioners. Even if important services such as continuity of care through OOH services or preventative services are not being offered by FD, the population still has a high degree of contentment.

In our opinion, these findings mostly reflect the population's belief that the competences of this speciality are limited by its nature, and this is how it is supposed to be.

The fact that a medical resource is relatively easily available encompasses the barriers to access due to limitations in the spectrum of services that is offered. These limitations are merely disturbing for FDs who feel unable to practice their profession.

FDs seem to be regarded by the population as trusted health resources of information about illnesses and treatment. More should be done to validate this important function of the FD.

This study has also revealed gaps in the provision of primary care from the perspective of normative needs. The primary care system must develop important attributes, such as preventive services or

continuity of care. Cervical cancer screening is not performed in many FD offices, and this is an important public health problem, since cervical cancer is highly prevalent in our country.

Health needs assessments would be irrelevant if they were not followed by an implementation plan. The results of our study should be further discussed among interested parties, e.g., among those within the profession and those of different specialties, to identify what should be changed in the future to encourage FDs to practise a broad variety of services and improve the health of the community.

### **Limitation of the study**

This analysis was performed to describe the healthcare needs of the population in our region. Generalisability is therefore limited in terms of specific results, but some of the conclusions related to regulatory policies are generally applicable.

## **List Of Abbreviations**

FD: family doctor

NHIS: national health insurance system

NHIH: National Health Insurance House

HNA: health needs assessment

OOH: out-of-hours services

## **Declarations**

### **Ethics approval and consent to participate**

The study was approved by the Ethics Committee of Transylvania University. The consent of the patients to participate in the study was verbal and assumed through the completion of the questionnaire. The questionnaire has a heading section that explains the reasons for the study and that the study is anonymous. The questionnaire was approved by the Ethics Committee.

### **Consent for publication**

Not applicable

### **Availability of data and materials**

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

### **Competing interests**

The authors declare that they have no competing interests

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## **Authors' contributions**

Andrea Neculau is the main author responsible for the design of the study, Ethics Committee approval, questionnaire design and validation, data collection, and manuscript writing and therefore is the corresponding author.

Liliana Rogozea contributed to the study design and data analysis.

Daniela Popa contributed to the questionnaire design and validation.

Ioana Atudorei contributed to the questionnaire design and data analysis.

Marius Moga contributed to the study design and data analysis.

Florin Leasu contributed to the study design and data analysis.

Anca Lacatus has contributed to the data analysis and interpretation.

## **Acknowledgements**

Not applicable

## **Authors' Information**

AN is a family physician and a lecturer at the Fundamental, Prophylactic and Clinical Sciences Department of Transylvania University, where she teaches family medicine to undergraduate and postgraduate students. She is also a leader in the medical community, as she is the president of the professional association of family doctors of County Brasov, Romania. In the past 10 years, she has been involved in projects linked with increasing the quality of medical services in primary care.

Together with all the other authors of the article, she has developed the needs assessment project in our community between January 2018 and February 2019.

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## Figures

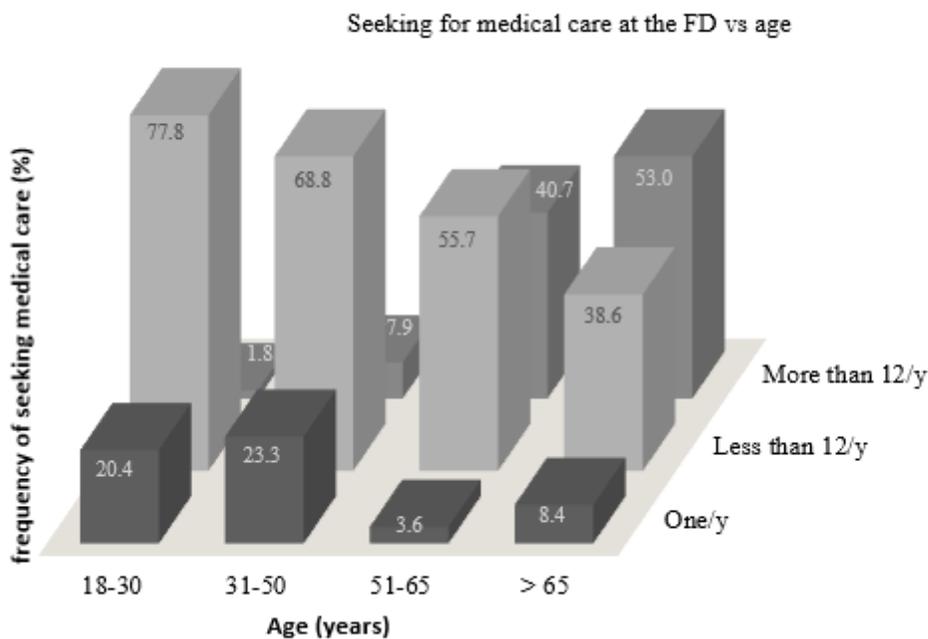


Figure 1

Seeking medical care at the FD vs age

## Supplementary Files

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- [ISSMSTROBEChecklistneculau2019.pdf](#)