



## UNMET NEEDS FOR HEALTH CARE SERVICES IN BULGARIA

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### ABSTRACT

**Background:** In all European countries, an important policy objective is the equity of access to health care. The factors that affect access to health care can differ as the demand- and supply-side factors. Moreover, there are many tools to assess the extent of inequity in access to services. One simple tool is the assessing reports of unmet needs for health care.

**Purpose:** The study has two objectives: to examine the evidence of self-reported unmet needs and to analyze the relationship between foregone medical care and both type of residence and socioeconomic status.

**Materials and Methods:** We use data from the European Union Statistics on Income and Living Conditions. The access to health care is measured using the concept of unmet need for medical examination or treatment during the last 12 months. The relationship between foregone medical care and both type of residence and socioeconomic status is examined through the representative survey conducted in 2014.

**Results:** The Eurostat results show that treatment costs are the most common reason for foregone medical care in Bulgaria. We observe a gradual decrease in the share of people who reported having unmet needs due to being too expensive. According to the 2014 survey, significant differences between urban and rural areas as well as among the income groups are identified. The results show the problems in access to health care services mainly in small towns and villages.

**Conclusion:** Although major essential changes were made in the Bulgarian health care system, the equity problems remain an important challenge to policy-makers.

**Key words:** unmet needs, health care services, inequity, Bulgaria

### INTRODUCTION

In many European countries, the equity of access to health care for all people is an important policy objective. Various factors affect access to health care. These factors can differ as the demand- and supply-side factors [1, 2]. Moreover, there are many tools and methods to assess the extent of inequity in access to and use of services. One relatively simple tool is the assessing reports of unmet needs for health care. It is considered as a very useful method of measuring socioeconomic inequities, which complements the conventional methods (e.g. needs-adjusted utilization) and overcomes some of their limitations [3].

However, defining and measuring the unmet health care needs is difficult. According to Carr and Wolf [4], an unmet need is “the differences, if any, between those services judged necessary to deal appropriately with defined health problems and those services actually being received ... an unmet need is the absence of any, or of sufficient, or of appropriate care and services”. Allin S, et al. [3] describe unmet needs in five categories: unperceived unmet need; subjective, chosen unmet need; subjective, not-chosen unmet need; subjective, clinician-validated unmet need and subjective unmet expectations. Hence, on the one hand, unmet health care needs can arise as a result of health care system and on the other hand, as a result of the personal behavior and preferences.

Many studies on subjective unmet need have been carried out in the United States and Canada, as well as in different European countries. Most of them analyze the existing access barriers, such as direct or indirect cost for health care services. The surveys conducted in Europe have identified a strong relation between unmet needs with both income and health whereby people who report unmet need tend to be in worse health and with lower income [5]. However, the reasons for reporting unmet need or forgone care differ between the European countries. Based on existing literature on access barriers to health care services, unmet health care needs can be grouped in three types according to the nature of the stated reason [6]:

- availability - waiting list, service unavailable, service not available in the area;
- accessibility - financial burden, transportation problems;
- acceptability - too busy, fear of doctor/hospital/examination/treatment, ignored problem, not knowing where to go and do not trust the efficacy of treatment.

Equity within the Bulgarian health care system is a challenge, not only because of differences in health care needs, but also because of the socioeconomic disparities and territorial imbalances. The large number of uninsured people, shortages of general practitioners (GPs) in some districts and municipalities, difficult access to specialized health care and financial barriers continue to persist.

The present study focuses on unmet needs for health care services in Bulgaria. It has two objectives. The first objective is to examine the evidence of self-reported unmet needs; and the second objective is to analyze the relationship between foregone care and both type of residence and socioeconomic status (income group) of the respondents.

## MATERIALS AND METHODS

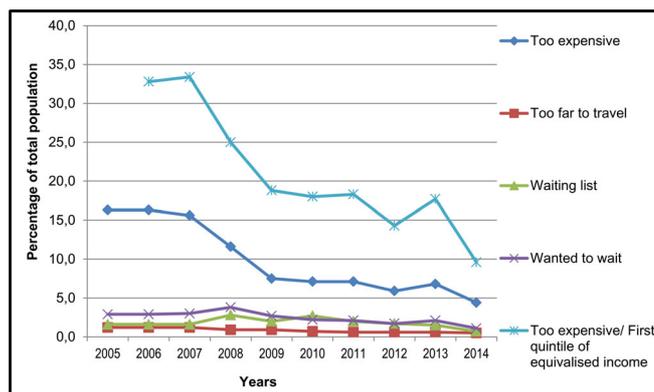
We use data from the European Union Statistics on Income and Living Conditions (EU-SILC) conducted by Eurostat [7]. EU-SILC was launched in 2004 and data for Bulgaria are available from 2005 but not for all datasets. According to this data, the access to health care is measured using the concept of unmet needs for medical examination or treatment during the last 12 months. In particular, respondents are asked to indicate the reason for unmet need.

The relationship between foregone or delayed medical care and both type of residence and socioeconomic status is examined through the representative survey conducted in 2014 [8]. The data collection is based on face-to-face interviews, using a standardized questionnaire. The survey was conducted in Northeast Region of Bulgaria. The sample covers different types of settlements and includes 618 citizens of the region. The survey results are analyzed by one- and two-dimensional distributions with determining the sampling error and confidence interval.

## RESULTS

Unmet needs for medical examination or treatment in the EU-SILC is measured subjectively. The results from EU-SILC show that treatment costs are the most common reason for foregone medical care in Bulgaria. However, we observe a gradual decrease in the share of people who reported having unmet needs due to being too expensive. In 2005, this share was 16.3% of the population aged 16 and over and in 2014, it decreased to 4.4% (Figure 1). Generally, women and rural residents tend to report slightly more unmet health care needs than men and citizens of larger towns with respect to financial reasons.

**Fig. 1.** Self-reported unmet needs by reasons in Bulgaria



In 2014, 9.6% of the population in the first income quintile group (the 20% of the population with lowest income) reported unmet needs for a medical examination or treatment due to expense, compared with 32.8% in 2006 [9]. Generally, expenses, desire to wait or see if the problem solved on its own, and a waiting list were the most frequent reasons given for unmet health care needs in Bulgaria.

According to the 2014 survey, foregone care shows unmet needs for medical services. The respondents reported that most often they postponed visits to GPs - 61.49% of small town residents and 59.13% of individuals living in rural areas did not use outpatient services when needed. The largest share of those living in small towns forewent specialized medical care, followed by those living in villages (Table 1). The share of respondents who foregone physician visits or hospital admissions is the smallest in large towns. Therefore, results show problems in access to health care services mainly in small towns and villages.

**Tab. 1.** Reported foregone health care services

Health care services	Large city (%)	Small town (%)	Village (%)	Total (%)	$\Delta p$	95% CI
GPs	45,04	61,49	59,13	53,72	3,94	49,78-57,66
Specialists in outpatient care	33,21	51,35	36,06	38,51	3,86	34,66-42,37
Hospital	10,69	22,30	17,31	15,70	2,89	12,80-18,59

Since the average income of respondents is significantly lower in smaller towns and villages than in larger towns, it can be assumed that income is one of the reasons for foregone or delayed health care services. Table 2 presents the distribution of quintile income groups of respondents who state foregone visits or hospital admission. The results show that a significant share of people with the lowest income refrains from use of necessary health care

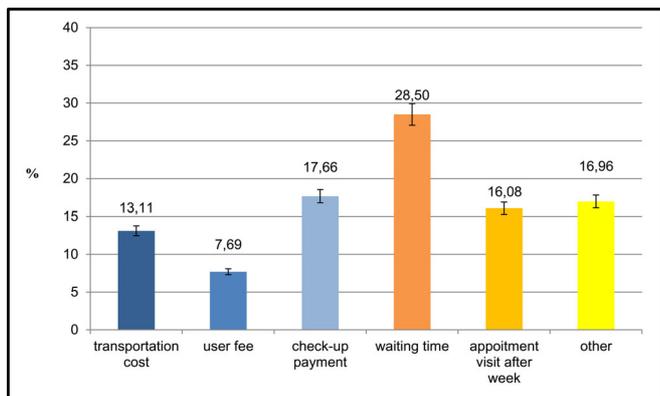
services - 63.72% have not visited a GP; 65.68% have not visited a specialist and 79.17% forewent hospitalization. The share of respondents who have not visited a doctor or have postponed a hospital admission decreases in higher income quintiles. This distribution demonstrates a functional relationship between the foregone medical care and income of the respondents (Table 2).

**Tab. 2.** Distribution of respondents who foregone medical care, by monthly household income (in percentage)

Quintile income groups	GPs	Specialists in outpatient care	Hospital
First quintile	63,72	65,68	79,17
Second quintile	15,85	16,53	8,33
Third quintile	10,67	9,75	7,29
Fourth quintile	6,10	5,93	5,21
Fifth quintile	3,66	2,11	0

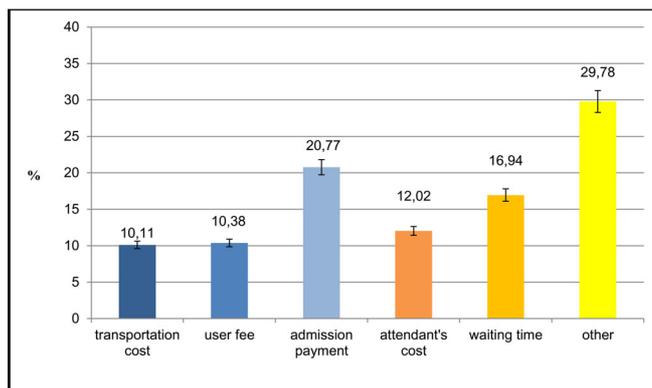
Although the reasons for foregone care or delayed visits differ, the most important are those indicating waiting time in front of the physician’s office and costs. Payments for check-up are an access barrier when the patient has no referral from a GP or he/she is uninsured (Figure 2). The answer “other reasons” includes “lack of time”, “transportation difficulties due to disability” and “the need for help from relatives and friends.”

**Fig. 2.** Reasons for forgone visits



More than half of respondents in the district towns reported that there was a waiting list or they did not have time. The waiting list hindering medical examination or treatment was the most frequent reason given for unmet medical needs in small towns. Financial barriers were less common factor for foregone medical examination in urban areas. Conversely, the rural residents more often forewent a medical examination or treatment due to expense (payment for check-up, transportation cost). About 8% of respondents living in villages report that even the user fee is a barrier to access to outpatient services. Missed benefits due to work absence, lack of time and transportation difficulties are the main reasons for forgone hospital admission in the small towns (Fig. 3). In district towns, 12.50% of respondents stated that payments for hospital admission due to no referral from a GP or no social health insurance are the reasons for forgone inpatient services, while in the small towns 26.32% of respondents forewent hospitalizations due to planning hospital admission after week. The respondents living in rural areas reported mostly financial reasons – admission payment (31.11%), transportation costs (17.78%) and attendant’s costs (13.33%).

**Fig. 3.** Reasons for forgone hospital admission



**DISCUSSION**

Results of the EU-SILC suggested that in the period 2005-2014, financial burden is an important factor limiting access to health care. These findings are confirmed from the Bulgarian study in 2014. The latter indicate the presence of significant differences between the types of settlements in case of both outpatient and inpatient services. In contrast to health care utilization which shows realized opportunities for access (actual choices by consumers), the foregone medical care could be interpreted as evidence of the existence of significant access barriers that causes unmet health care needs. We observe statistically significant differences among the reasons that lead to foregone health services with regard to settlements. Organizational barriers to accessing these services (mostly related to lack of time and work absence) were frequently pointed out by the consumers in urban areas. Rural population groups who live far from the health care facilities are confronted with high transportation costs and payments for medical care. Hence, these accessibility problems require effective measures to reduce inequity of access to health care.

There are also significant differences among the reasons to access to medical care in terms of household income. These differences are observed among people with the lowest income. The reasons for unmet needs for a medical examination in the poorest quintile are related to the expenses (payments for check-up and user fee), while in all the rest quintiles, the waiting time and lack of time are the main reasons. With regard to unmet needs for hospitalizations, the reasons among people with lower incomes (first, second and third quintile) are also financial,

in particular the need to pay for admission, payment of user fees or attendant's costs. Respondents with higher incomes (fourth and fifth quintile) had unmet needs for hospital admission because of problems with acceptability.

## CONCLUSIONS

Subjective assessments of unmet needs include information on the reasons, which can be used to focus policy actions. In general, it can be concluded that patient payments for health care services are the main reason for forgone or delayed medical care in Bulgaria. Our study contributes important new evidence on significant differences

between urban and rural areas as well as among the income groups. Furthermore, postponing the use of health care services suggests the existence of unmet needs that can be detrimental for one's health status and can lead to higher health care costs later on. The differences between settlements can strengthen the health inequalities among the population. Moreover, the self-reported unmet needs arise mainly as a result of existing access barriers in Bulgarian health care system. Although major essential changes were made in the Bulgarian health care system, the equity problems remain an important challenge to policy-makers.

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