



## HEALTH INEQUALITIES IN THE CONDITIONS OF COVID 19

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### ABSTRACT

The Covid 19 pandemic has caused global changes in the economic, social and health aspects worldwide, including in our country. The purpose of this article is to present and analyse the opinions of patients regarding the change in their access to the health care system in terms of their income and the ability to purchase prescribed medication in the last year / March 2020 – April 2021 /. 531 patients were surveyed throughout the country for the period 03.2021 - 04.2021. The results show that the income of over 41% of the respondents decreased due to reduced working hours or job loss. This reflects on their ability to purchase prescribed medical treatment for every third of the respondents and leads to a reduction in the health expenses in  $\frac{1}{4}$  by the patients.

**Key words:** health inequalities, health expenditures, income, Covid 19

### INTRODUCTION

The Covid 19 pandemic has caused global changes in the economic, social and health aspects worldwide, including in our country (2, 4). It has negatively affected the economy of the euro area. Its effect can be reflected in consumption, which has suddenly dropped as a result of the large-scale restrictions and the rising unwillingness to take risks. Activity, especially in the service industry, also lessened considerably due to lack of demand and the restrictive measures.

On the 13th of March 2020, a state of emergency was implemented in Bulgaria as a result of the illness' spread with the aim of keeping the citizens safe from the immediate physical danger of the virus. The restrictive measures implemented had a shock effect on over 346 thousand companies (3), 92% of which have up

to 10 employees, and over 3200 thousand people employed in different sectors (1), 30% of whom work in companies with up to 10 employees.

### METHODS

A documentary and survey method was used to objectify the observed results. Literature sources in the field of access to outpatient care have been studied.

This article's aim is to present and analyse the opinions of patients regarding the change in their access to the healthcare system in terms of their income and their ability to buy prescribed medicine during the last year /March 2020 – April 2021/.

531 patients from the entire country were interviewed in the period March 2020 – April 2021. The survey was anonymous and was conducted by using the online platform Google Forms.

The choice is random - there is no selection of respondents, which gives grounds to claim representativeness of the results. The confidence interval at significance level  $P(t) = 0.05$  provides

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information for assessing the accuracy of the analyzed indicators.

Quantitative analyzes were performed with a statistical package of application programs - SPSS 17.0. MICROSOFT OFFICE products are used for tabular and graphic processing and presentation.

**RESULTS AND DISCUSSION.**

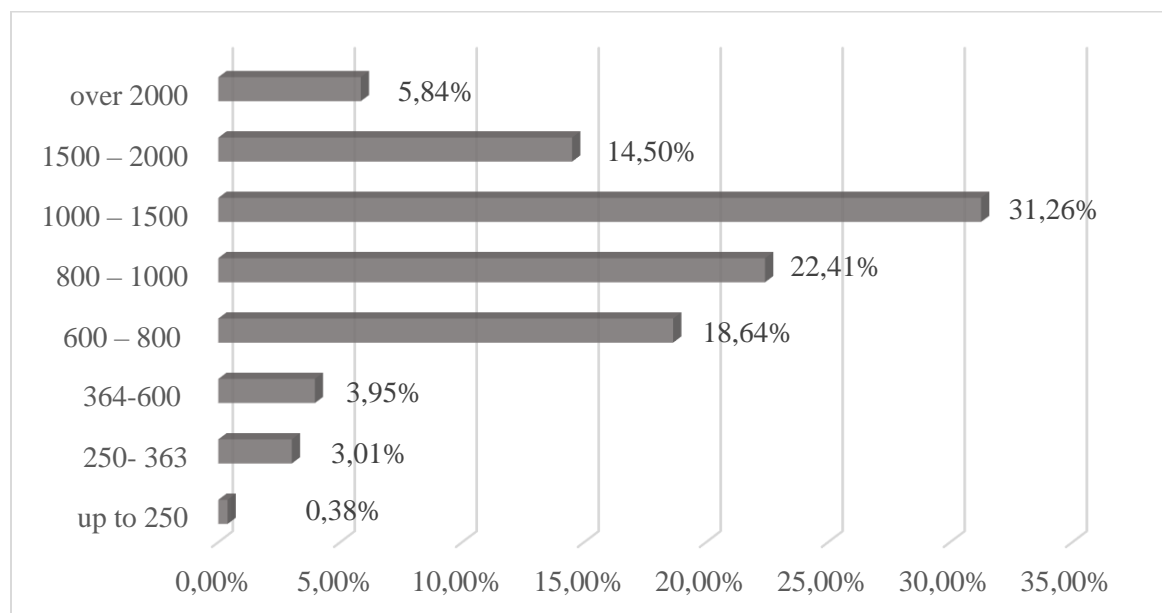
This article is to present and analyse the opinions of patients regarding the change in their access to the health care system in terms of their income and the ability to purchase prescribed medication in the last year. Men made up 43,88 % of the respondents, and women accounted for 56,12 %.

In regards to the age distribution of the respondents: 1/3 of all belong to the 51 to 60 years old category, followed by the 41 to 50 year old category with 23,16 % and the over 60 years old category at 17,89 %. This age distribution is caused by the manner in which the questionnaire was distributed. In terms of place of residence over half of the respondents - 52,92% - listed the capital, followed by those living in province centres at 22,03%, those living in towns - 16,57%, and those living in villages - 8,47%. The social status, income and work sector of the respondents are of particular interest in connection to the goal of this survey. In **Table 1**, the social status of the respondents, 74,58 % of whom are actively employed, is depicted.

*Table 1. Social Status of the respondents*

Social status	number	%
Student	11	2,07%
Working (self-employed or employed)	357	67,23%
Unemployed (actively seeking a job)	67	12,62%
Inactive (does not work and does not actively seek a job)	3	0,56%
Pensioner	37	6,97%
Pensioner (working)	39	7,34%
Pensioner due to an illness	17	3,20%

In terms of their income (**Figure 1**) only 20.34 % from the respondents have an income exceeding the average for the country in 2020.



**Figure 1.** Monthly income of the respondents in BGN.

When asked “Did you income change in the conditions of the COVID 19 pandemic” 53,11 % answer that there was a change in their income, and this change was negative in 41,24% of them, while only 11,86% had a raise in income. The lowering of income was most often the result of a loss of work /22,79%/, cut work hours /14,31%/, and the forced taking of unpaid leave /4,14%/. This shows the negative impact of the changes which arose in all sectors of economy as a result of the epidemic situation and its influence over the population.

We found a connection between the industries respondents work in and the change in their income for the analysed time period /03.2020-04.2021/ (**Table 2**). The following dependency was established – the largest decline of income was observed in the respondents who work in the trade, transport and food service industries, as well as in the culture, sport and entertainment industries. This result corresponds to the restrictions placed in the country for this period and the lowered activity of consumption in these sectors.

**Table 2.** Change in the income of the respondents depending on the sector in which they work

	<b>Income decreased due to reduced working hours</b>	<b>Income decreased due to forced unpaid leave</b>	<b>Income decreased due to job loss</b>	<b>An increased income</b>	<b>Income has not changed</b>
<b>Industry (excluding building)</b>	19.74%	9.09%	8.26%	4.76%	9.24%
<b>Building</b>	2.63%	0.00%	1.65%	0.00%	6.02%
<b>Trade, transport and food service industries</b>	40.79%	59.09%	57.02%	7.94%	3.61%
<b>Telecommunications</b>	0.00%	0.00%	0.00%	12.70%	13.25%
<b>Real estate operations</b>	5.26%	0.00%	2.48%	0.00%	2.81%
<b>Culture, sports, entertainment industries</b>	22.37%	31.82%	30.58%	0.00%	2.01%
<b>Healthcare</b>	2.63%	0.00%	0.00%	65.08%	38.96%
<b>Education</b>	0.00%	0.00%	0.00%	9.52%	15.66%
<b>Something else</b>	6.58%	0.00%	0.00%	0.00%	8.43%

We asked the participants in the survey whether in the last year they ended up not purchasing medicine they had been prescribed. As expected, the answers correspond with their lowered income. One third of the respondents /29,94%/

answered they didn't purchase the prescribed medications, and the most common reasons for this are the lack of funds /57,23%/, followed by the high price of the medications /18,24%/, and only 24,53% listed different reasons (**Table 3**).

**Table 3.** Reasons for not purchasing medicine prescribed by a doctor.

<b>Reasons</b>	<b>number</b>	<b>%</b>
I did not have money	91	57.23%
I did not have free time, due to the nature of my work	2	1.26%
I did not have free time due to other commitments	3	1.89%
Due to the lack of pharmacies in the place I live in	9	5.66%
The prescribed medications are too expensive	29	18.24%
The medications were not available in the pharmacies	7	4.40%
Distrust in the benefits of these medications	11	6.92%
Other	7	4.40%

25.61% of the people surveyed have limited their spending for health, the main reason for this being again the lack of funds /66,18%/.

### CONCLUSIONS

From the data presented we can infer the following conclusions:

1. The COVID 19 pandemic is the reason for lowered income in 41% in the surveyed patients.
2. The most common reasons for their income diminishing is the loss of work, cut working hours and the forced taking of unpaid leave.
3. The lowered income leads to lowered health expenses in ¼ of the respondents and not purchasing medication in 1/3 of them.

The lack of clarity as to the pandemic's duration and its consequences on the economy of the country are unpredictable. The risks of the current crisis' development can manifest in its duration, as well as in regards to the size of the declines in basic economic indicators, the income of households, and employment. On the other hand, sectors such as healthcare, the production of

protective equipment, telecommunications, and courier services have grown, and others like the ICT sector and education have quickly adapted. It is unrealistic to expect that they turn into a propeller for economic activity, and compensate for the decline in industry and services, more specifically in trade, transport, culture and food service.

### REFERENCE

1. <https://mlsp.government.bg/index.php?section=POLICIESI&lang=&I=246>
2. <https://www.ecb.europa.eu/pub/annual/html/ar2020~4960fb81ae.bg.html>.
3. <https://www.nsi.bg/bg/content/7697/%D0%B1%D1%80%D0%BE%D0%B9%D0%BD%D0%B0%D0%BF%D1%80%D0%B5%D0%B4%D0%BF%D1%80%D0%B8%D1%8F%D1%82%D0%B8%D1%8F%D1%82%D0%B0>
4. <https://www.unisofia.bg/index.php/bul/content/download/231663/1543206/version/1/file/FEBA-Analysis-COVID-19.pdf>