

## Original Research Article

# Profile of Patients Using OTC Drugs

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### Abstract

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According to the Bulgarian legislation, drugs in Bulgaria have always been divided in two types – non-prescription (OTC - Over The Counter) and prescription (Rx- the Latin abbreviation for recipe) that must be stored under lock and key, and patients are not supposed to see them exposed in the pharmacy. A prescription is not required for more than 50% of the medicines on the Bulgarian market. In each country, these drugs are selected by a regulatory agency which ensures that their ingredients are safe, reliable and efficient. Patients often use OTC products for self-medication, and the group of these drugs includes products that are most frequently used – flu drugs and vaccines, painkillers, supplements, etc. The World Health Organization (WHO) defines self-medication as a factor that enhances health prevention and specifies it as one of the elements of national health strategies. The advantages of self-medication will become even more significant: for patients - a remedy for their condition, reduced health-related absence from work, and a cheaper treatment; for the society - a more adequate management of the “free-of-charge” public services, no ambulatory expenses, no treatment expenses, no expenses for statutory sick pay, better overall health care outcomes.

**Key words:** Flu drugs, OTC, Patients, Pharmaceutical market, Self-medication

## INTRODUCTION

The number of non-prescription drugs is on the rise. In fact, about six out of 10 medications bought by U.S. consumers are now sold as non-prescription, or over-the-counter (OTC) drugs, according to the U.S. Food and Drug Administration (FDA) (<http://pharma.about.com/od/Over-the-Counter-Medicine/a/The-Over-the-counter-Drug-Industry.htm>). Non-prescription medicines (OTC products) comprise 26-28% of the overall sales volume on the pharmaceutical market in Bulgaria. The general tendency is toward an increase in the consumption of these products by 5 to 7% per year. The government covers only a small share of the final cost of medicines, the rest being covered by patients' out-of-pocket payments. The increase in the total costs for medical treatment in Bulgaria is a logical and normal process based on objective reasons - a large number of untreated or inadequately treated patients, an ageing population, access to new and better forms of medical treatment, increased awareness and higher expectations

of patients (<https://www.google.bg/search?q=3.%09Radeva%2C+G.+Households+health+care+costs.+Tendencies+and+forecasts.+Master+Thesis%2C+Medical+University+-+Varna%2C+2012.&ie>).

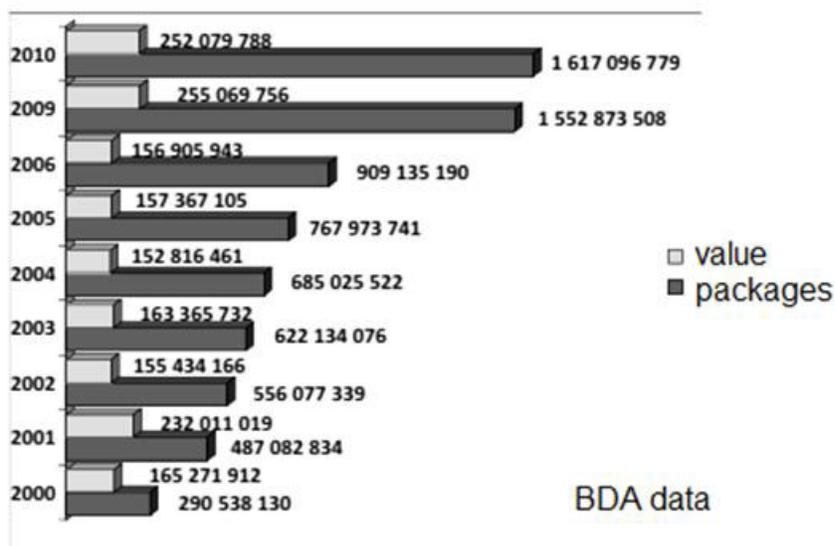
## Objectives

The purpose of the study presented in this article is to investigate the factors influencing the use of OTC medicines and to define the profile and motivations of the patients seeking self-medication.

## MATERIALS AND METHODS

A survey was carried out in Varna among patients (n=152) in pharmacies of different size and location in the city. The method used was a direct individual anonymous

## Dynamics of the Bulgarian pharmaceutical market



**Figure 1.** Dynamics of the Bulgarian pharmaceutical market ([http://www.bda.bg/index.php?option=com\\_content&view=article&id=70&Itemid=81&lang=bg](http://www.bda.bg/index.php?option=com_content&view=article&id=70&Itemid=81&lang=bg))

questionnaire. The questionnaire gathered information about patients' age and gender, the conditions necessitating the purchase of medications, the reasons for self-medication, patients' literacy and sources of information, the role of pharmacists in the pharmacies, the effects on patients and public health funds. We carried out a secondary analysis of the statistic data regarding the domestic market of drugs and OTC products.

## RESULTS AND DISCUSSION

The classification of medicinal products in Bulgaria according to the mode of their dispensing is regulated by the Law on Medicinal Products in Human Medicine—Chapter VII and №3/04. Ordinance 03.2008 of the Ministry of Health "On the criteria for the classification of medicinal products and the requirements for the documentation related to changes to the classification".

It should be noted that there is no clear procedure for transition from prescription (Rx) to non-prescription (OTC) status and the main basis for comparison is the verification of the OTC status of the product in the rest of EU countries.

The factors influencing the OTC status are associated with the life cycle of the drugs, economic factors such as the wide use and manner of distribution of OTC products (only in pharmacies, outside pharmacies, on the internet).

The factors influencing patients' interest to OTC medicines are convenience (antacids, antifungals,

antihistamines), emergency (headache, cough and cold, emergency contraception) (Danchev et al., 2011).

The share of personal health care costs in the EU countries is 17.9%, with 82.1 % covered by public funds. Bulgaria is still among the countries where the personal health care costs are among the highest in Europe. The government provides annually only 40 BGN per capita for home treatment medicines, while in Europe this figure is much higher (Slovenia - 205 BGN, Slovakia- 252 BGN, Hungary -223 BGN, Germany - 614 BGN, France - 622 BGN) ([profit.bg/news/Razhodite-na-bulgarite-za...sa...v.../nid-34939.html](http://profit.bg/news/Razhodite-na-bulgarite-za...sa...v.../nid-34939.html)).

In times of crisis, the pharmaceutical market showed sales growth of 5.2 % in terms of packages, and 12.4% growth in terms of price, compared with 2010. The biggest increase is in the food supplements - 20%. There are 13.1% more spendings for drugs sold without prescription, for drugs with prescription – 11.6%, and for other products – 11.1%. (Figure 1)

In these market dynamics, Bulgarians pay directly out of their pocket two-thirds of the consumption of drugs. Public funds cover 38%, and personal funds cover 62% of the costs with a tendency to an increase up to 64%. The factors limiting the public costs for drugs are the low share of public health care funds (4% of GDP compared to approximately 7-8% in other EU countries) and the decline of the economic standard of the Bulgarians ([profit.bg/news/Razhodite-na-bulgarite-za...sa...v.../nid-34939.html](http://profit.bg/news/Razhodite-na-bulgarite-za...sa...v.../nid-34939.html)). (Table 1)

The survey took place between February - September 2013 covering twenty pharmacies in the central and peri-

**Table 1.** Financing of the pharmaceutical market

	Financing of the pharmaceutical market	
	Result for 2010 (mln BGN)	Forecast for 2011 (mln BGN)
State-funded market	642	680
Medications paid by patients	1235	1230
State-funded market share(%)		
Free market share (%)	66%	66%

**Source:** IMS Health (<http://www.imshealth.com/portal/site/imshealth>)

pheral area of Varna.

The results of the survey show that 58.82% of women and 41.18% of men use OTC products, and 70.59% of them apply self-medication. This relative share is slightly higher than the share in Europe (65%).

Most often, customers purchasing non-prescription drugs are aged 40 years and less (52%), followed by the age group 41-60 years, which is 31% and the remaining 17% are patients aged 61 or older. Higher education is a factor for a more frequent use of OTC products which is evidenced by the distribution of the respondents: 58.14% users of OTC medicines have higher education, followed by the users with secondary education- 37.21%, the lowest is the share of patients with primary education - 4.65%.

Leading in the use of non-prescription drugs is that they may be used for prevention and treatment of symptoms and diseases, which do not require medical consultation or supervision. The conditions for which such products are purchased are mainly headache, cold, minor injuries, general strengthening, prevention.

### **The use of OTC products reduces the pressure on the healthcare system**

Eurostat surveys show that if 50% of the medical consultations were avoided, the EU governments would save or reallocate for other needs: 5.8 billion euro for health professionals, which is equal to 8% of the total outpatient costs; 2.5 billion euro of the prescription costs which is 7% of the total costs paid for reimbursed prescription medicines; 4.7 billion euro for absence from work by employees.

The reasons why patients use non-prescription drugs are mainly related to the opportunity to avoid a visit to their GP (39.29%), and according to 37.51% of the respondents, it reduces their absence from work. Approximately one-quarter of the respondents are driven by the desire to save money from charges, time from waiting for a medical consultation, transport costs and costs of prescribed therapy.

The leading motives of the respondents are mainly economic. The studies show the alarming fact that in

recent times the financial barriers to the access to medical and pharmaceutical care are getting more frequent (Atanasova et al., 2012).

According to the data of Gallup International's representative study conducted in the beginning of August 2012, including 1008 respondents, 38% of the households are forced to limit their health care costs such as medicines and medical examinations.

According to G. Radeva, the satisfaction of the health needs of the citizens is directly dependent on their financial status. According to the same author, 20% of the respondents are unable to cover their health care costs. The highest (64%) is the share of the households able to cover their health care needs partially. Households spend most for maintaining medical treatment – 44% (Radeva, 2012).

In cases where they need additional funds, 45.35% of the households rely on relatives and friends 26.74%. Few of them (12.79%) use bank loans and medical insurance (15.12%).

Nearly 59% of the respondents were patients with chronic diseases, and 17.65% of them used OTC drugs in their treatment. This is in line with the concept of WHO for collaborative care presupposing that in some chronic illnesses, after an initial diagnosis and prescription by the health care professional, the patient may use self-medication while the health care professional retains his role of a consultant ([http://www.researchgate.net/publication/12337108\\_Information\\_technol](http://www.researchgate.net/publication/12337108_Information_technol)).

A crucial aspect in the process of using of non-prescription drugs is the issue of the frequency of medical risk. In 82.35% of the respondents, there were no complications or adverse side effects resulting from the use of non-prescription drugs, and 5.88% were unable to determine whether the side effects were resulting from the use of such medications. Adverse effects manifest in 11.76% of the respondents.

This frequency and the risk of potential negative consequences viewed in the context of the contemporary paradigm of WHO for the active collaboration and participation of patients in the process of their diagnosis and treatment, raises again the issue of the awareness of the patients, their health literacy and the responsibility of pharmacists in pharmacies to inform customers about potential risks of self-medication ([www.who-umc.org](http://www.who-umc.org)).

Clear responsibilities and partnership between actors and authorities are the key element in the process of providing high quality health care service. It is necessary to focus on the needs of the patient to understand, to plan and to make right decisions.

## CONCLUSION

The tendencies in the dynamics of distribution of OTC products place an important emphasis on the study of the factors influencing their use. The investigation of the users' profile and patients' motives for self-medication is essential for the adequate behaviour of the pharmacy industry to minimize the risks of such use, to increase the positive economic effects on the system and to provide high quality pharmaceutical services.

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