

## ЭКОНОМИЧЕСКИЕ НАУКИ

### DENTAL PRACTICE IN BULGARIA WITHIN THE PERIOD OF TRANSITION TO MARKET ECONOMY

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#### Summary:

Despite the deep controversies in the healthcare system, preconditioned by the economic and political changes in the social environment, the dental physicians in Bulgaria sustainably take the road to re-professionalization, mainly through restoration of the autonomy of the profession. After studying their socio-professional identity, the emphasis is put on the market aspects of the professional realization.

The present article analyses the dynamics in the organization of the dental practices under the influence of the main tendencies in the socio-economic development in statistically differentiated administrative and geographic regions in the Republic of Bulgaria for a 5-year period – from 2011 to 2015 inclusive. The following facts have been established:

- The deterioration of the demographic situation in the Republic of Bulgaria in the years of transition to market economy has increased. The tendency is towards depopulation and aging of the population.
- The changes in the age structure reflect on the content of the dental aid dictated by the needs of the separate age groups.
- The socio-demographic specification of the administrative-geographic regions imposes redistribution of the dental practitioners, their bias towards populated areas with higher number and more solvent residents.
- Parallel to the increase in the number of dental physicians, the inequality of distribution of the dental practices in the administrative geographic regions is strongly expressed.
- With the establishment and expansion of the private sector, the distribution of dental physicians depends on the market mechanisms ensuring the income and profit of the practices. The larger economically attractive centres are populated by a larger number of people and the needs of dental aid rise, just as the income of the dental physicians.

**Key words:** administrative geographic regions, demographic situation, dental practitioners, private sector, population, market mechanisms

#### Introduction:

Within the period of transition from centralized planned economy to market relations, the organization of the dental practice in Bulgaria has significantly changed under the influence of the main tendencies of the overall socio-economic development on a local, regional and global level [4 p.69; 5 p.115].

As a result of the changed social environment, new principles and concepts of funding are introduced in the healthcare system, medical and dental care is provided to the population, the socio-professional status of the practitioners and dental practitioners has changed [6 p.218; 7 p.32].

In the course of reforms, in the past decades, the ownership of the health institutions has passed through a number of stages: from 100% state ownership, through mixed (public-state and public-private

ownership), to almost 100% private ownership. With the introduction of the market mechanisms the dental physicians were faced with significant challenges: competition, free choice, market price formation [9 p.486; 11 p. 60]. With the transition to market relations in healthcare, there is also a process of change in the ownership of the base, material and technical equipment and the dental practice. The owner, who is already an entrepreneur, assumes the financial risk by investing his capital in an economic activity and tries to increase it [12 p.116 13 p.46].

The change in the ownership of the medical institutions and their turning into full-value market subjects creates opportunities for generation of own income from medical activity [14 p.71; 16 p.47].

The changes in the political government of Bulgaria in the last few decades and the reorganizations

in the economy related thereto, position the dental practice under new conditions. The state government existing prior to the beginning of the reforms (1945-1989) was preconditioned by the planned economic development and today each participant on the market determines and plans his development. Under the new conditions, dental services to the population are subject to new market principles. Sources of income are the health insurance contributions, household budgets, proceeds from companies and organizations [18 p.290; 20 p.19]. The transition in Bulgaria is of „Semashko“ transitional type in a contractual model of social health insurance. In the countries with developed market economy the main methods of funding of healthcare are supplemented by direct payment by the patients.

Due to the specific features of their activity, the dental practices belong to the system of payment for a type of service (fee-for-service) which is most frequent in payment to private health institutions and medical practices. The proceeds come directly from the patient or the health insurance fund at certain prices for each separate type of service [26 p.62; 27 p.28].

**The objective** of the present article is to study the dynamics in the organization of the dental practices in Bulgaria under the influence of the main tendencies in the social and economic development on a local and regional level.

#### Material and methods:

Subject of the study is the process of formation and organization of the dental practices under the influence of the factors of the market of dental services and the new social relations. The study is retrospective for a 5-year period, from 2011 to 2015 inclusive. Qualitative and quantitative indices have been used for the analysis. The primary information has been derived from the annual reports of the National Statistical Institute (NSI). Variational, alternative and non-parametric analyses have been used for the statistical processing of the collected primary information. The computer processing of the collected database has been performed using the statistical package SPSS Version 19 and Microsoft Excel.

#### Results and discussion:

The Republic of Bulgaria has been divided into 28 administrative areas with average density of population – 66 people per sq.km. On the basis of its analyses, EUROSTAT divides Bulgaria into administrative-geographic regions, combining several areas from the administrative division of the country – North-West, Northern Central, North-East, South-West, Southern, Southern Central. The categorization is based on the following economic indices: GDP of the region, inflation, infrastructure, transport, degree of development of education and healthcare, unemployment rate (whose levels vary for the country in general and by regions).

Table 1

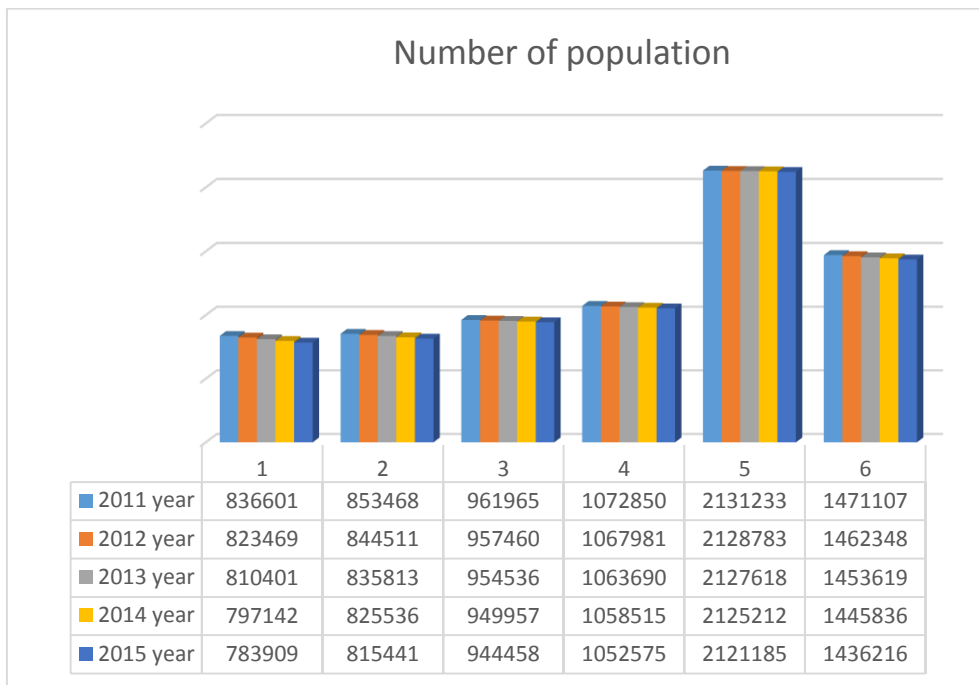
North-Western	Central North	North-East	South-East	South-West	Central Southern
Vidin	Veliko Tarnovo	Varna	Burgas	Blagoevgrad	Kardzhali
Vratsa	Gabrovo	Dobrich	Sliven	Kyustendil	Pazardzhik
Lovech	Razgrad	Targovishte	Stara Zagora	Pernik	Plovdiv
Montana	Ruse	Shumen	Yambol	Sofia	Smolyan
Pleven	Silistra			Sofia (capital)	Haskovo

For more clarity in the following diagrams we numbered the administrative-geographic regions in the following manner:

Region	№
North-Western	1
Central North	2
North-East	3
South-East	4
South-West	5
Central Southern	6

Deterioration of the demographic situation in the Republic of Bulgaria in the years of transition to market economy has increased. The birth-rate decreased and the death-rate increased, the growth of population is negative, there is an intensified emmigration flow. The tendency is towards depopulation and aging of the population. The demographic structure of the population in Chart 1

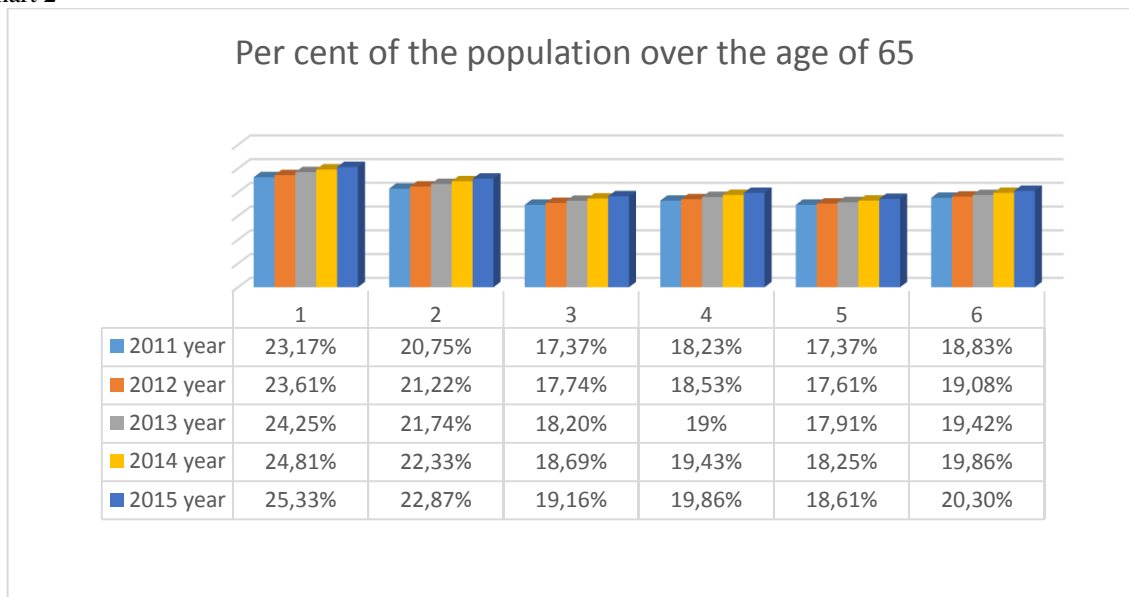
the administrative-geographic regions has been reflected in chart 1. During the analyzed time span (2011-2015 inclusive), the population decreased, the highest number being in the South-West region and the lowest – in the North-West region.



Aging of the population can be seen in chart 2. The per cent of people over the age of 65 marks an upward

tendency, the highest being in the North-West region and the lowest – in the South-West region.

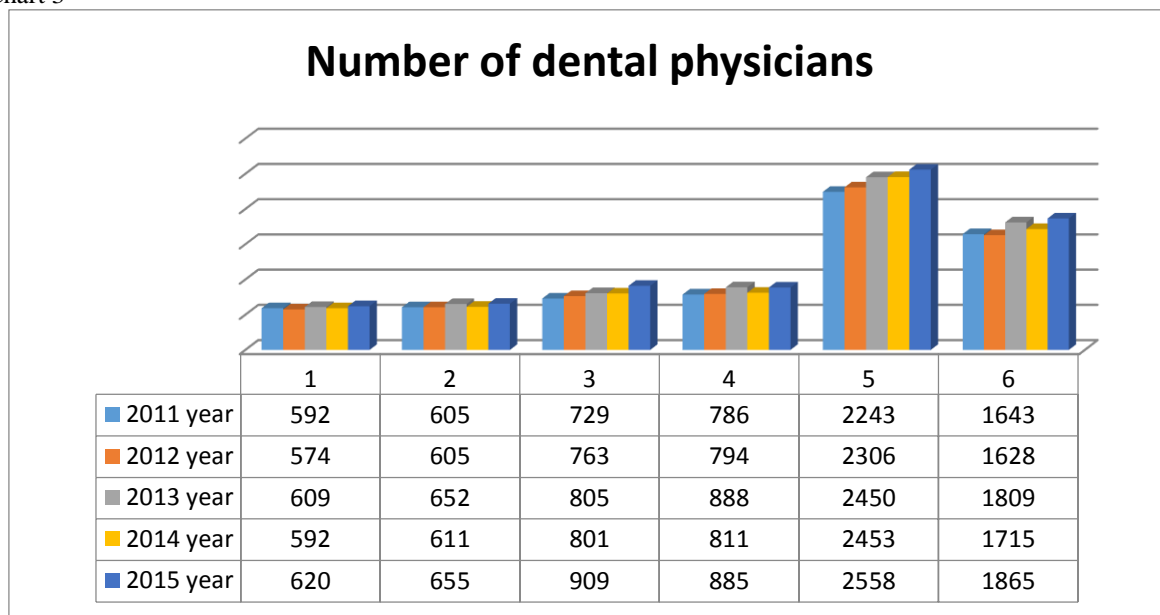
Chart 2



Together with the increase in the number of dental physicians, the unequal distribution of the dental practices in the administrative-geographic regions has be-

come more and more expressed. The highest rate belongs to the South-West region, followed by the South central region and the lowest rate is in the North-West region. (Chart 3)

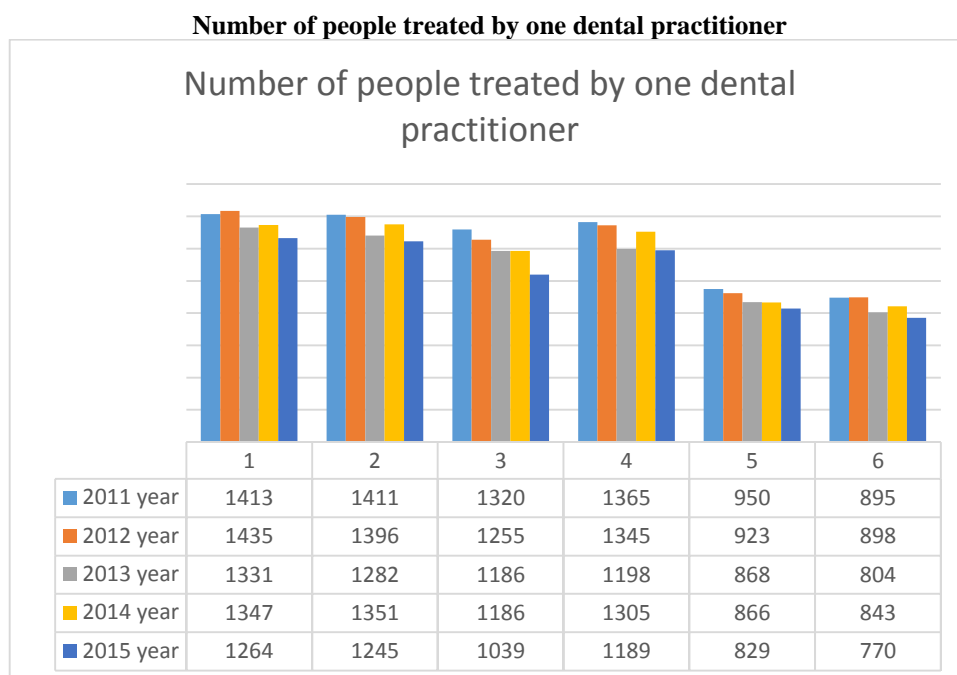
Chart 3



The quality of dental services and the specification of the dental status depend not only on the socio-economic environment but also on the number of people treated by one dental practitioner. The higher their number is towards the total number of the population, the higher the probability for accessible and high-quality dental service. During the analyzed time span (2011-

2015 inclusive), the number of people treated by one dental practitioner in all regions decreased, the highest being in the North-West region, followed by the North central region and the lowest – in the South central and Southern regions.

Chart 4



The socio-economic status of the population is different. The average annual remuneration of the practitioners in the regions during the observed time span (2011-2015 inclusive) increases, the highest being in

the South-West region, followed by the South-East region, the lowest being in the North-West region (Table 1)

The average annual remuneration of the individuals hired on employment contracts by regions (Table 1)

Administrative-geographical regions	2011	2012	2013	2014	2015
North-Western	6727	7106	7449	7888	8365
Central North	6598	6990	7474	7925	8418
North-East	7350	7806	8205	8601	9234
South-East	7518	7990	8363	8900	9363
South-West	10192	10896	11583	12214	13101
Central Southern	6541	7004	7449	7954	8458

The unemployment ratio is high in the North-West, North central and North-East regions and the lowest in the South-West region (Table 2)

Unemployment ratio (Table 2)

Administrative-geographical regions	2011	2012	2013	2014	2015
North-Western	12,3	14,0	14,2	12,1	10,6
Central North	14,3	15,3	13,2	10,6	9,3
North-East	18,2	16,8	12,6	10,3	9,7
South-East	11,9	13,0	11,9	10,4	7,9
South-West	8,2	9,8	8,9	6,7	5,4
Central Southern	13,8	13,5	12,0	9,2	7,1

The difficult access to healthcare and dental healthcare also comes as a result of the limited financial resources of the population, especially for the poorest circles. As a result of the reforms, there are also disproportions in the allocation of the health institutions.

#### Conclusion:

The recent adjustments for free treatment, the constantly decreasing standard of life are the basis of the limited opportunities for search of dental aid.

When positioning the dental activity entirely in the private sector in the newly established conditions, the modernization of the equipment and the used consumables depend on the financial abilities of the dental practitioners. Their income in Bulgaria come from the National Health Insurance Fund, other additional funds and direct payments from patients. The expenses are in different areas, for the organization of the practice – licensing, equipment of the dental office, materials, consumables, social security contributions, rent, remuneration. The dental practitioner is not only a healer but is also obliged to be familiar with the new requirements in the field of funding.

In the conditions of market economy, the admission of students is connected with the territorial needs of dental practitioners but also with the abilities for opening of dental offices from an economic point of view.

With the establishment and expansion of the private sector, the allocation of dental physicians depends on the market mechanisms for ensuring income and profit from the practices. The larger economically attractive centres are inhabited with a larger number of people and the needs of dental aid increase, just as the income of the dental practitioners.

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## ИНФОРМАТИКА И ИТЕРАЦИИ НАЧАЛЬНОГО РАССМОТРЕНИЯ РАБОТЫ О ПОРТОВЫХ СБОРАХ В КОНКУРЕНТНОЙ СРЕДЕ

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## INFORMATICS AND ITERATION OF INITIAL CONSIDERATION OF WORK ON PORT DUES IN A COMPETITIVE ENVIRONMENT

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### **Аннотация:**

В статье проведен анализ осуществленных диссертационным советом университета морского и речного флота и широко освещенных средствами информатики итераций предварительного рассмотрения диссертации соискателя. Данный анализ позволил выявить несоответствие этих итераций требованиям федеральных нормативно-правовых актов, регулирующих процедуры и оформление документации государственной научной аттестации.

### **Annotation:**

The article analyzes the iterations carried out by the dissertation council of the University of the Sea and river fleet and the iterations of the preliminary consideration of the dissertation of the applicant which are widely covered by informatics tools. This analysis revealed a discrepancy between these iterations and the requirements of the federal regulatory acts governing the procedures and documentation of the state scientific attestation.

**Ключевые слова:** диссертации, итерации предварительного рассмотрения, средства информатики, государственная научная аттестация, нормативно-правовые акты, портовые сборы, конкурентная среда.

**Key words:** dissertations, iterations of preliminary consideration, informatics tools, state scientific certification, normative legal acts, port charges, competitive environment.

В сегодняшней российской практике официального обнародования и рассмотрения стали появляться диссертации соискателей ученых степеней и

другие исследовательские работы, целью которых было обогащение научных знаний об экономической специфике морского и иных видов транспорта